REPORT RESUMES

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SPEECH PATHOLOGY AND AUDIOLOGY PROGRAMS IN ELEMENTARY AND SECONDARY SCHOOLS--A NATIONAL SURVEY OF CURRENT STATUS AND PROBLEMS.

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THE PRESENT STATUS OF SPEECH PATHOLOGY AND AUDIOLOGY IN THE NATION'S SCHOOL SYSTEMS WAS INVESTIGATED. AN ATTEMPT WAS MADE TO DETERMINE THE ADMINISTRATIVE AND TECHNICAL PROBLEMS EXISTING IN THIS AREA. THE OBJECTIVES WERE TO PROVIDE EDUCATORS AND CLINICIANS WITH INFORMATION ON THE GENERAL PRACTICE, TRENDS, AND DEPARTURES IN SPEECH PATHOLOGY AND AUDIOLOGY, AND TO IDENTIFY AND DEFINE UNRESOLVED PROBLEMS IN RELATION TO CURRENT RESEARCH, GROUPS IN NINE PROBLEN AREAS WERE APPOINTED REPRESENTING GEOGRAPHICAL AND PROFESSIONAL AREAS, AND CONSISTING OF A COLLEGE TRAINING PROGRAM SPECIALIST, TWO PUBLIC SCHOOL SUPERVISORS OF SPEECH AND/OR HEARING THERAPY PROGRAMS, AND A PUBLIC SCHOOL TEACHER. ALL NINE PROBLEM-AREA WORK GROUPS MET IN A GENERAL SESSION FOR A REVIEW OF THE BASIC PROBLEM, AND EACH WAS CHARGED WITH A SPECIFIC RESEARCH RESPONSIBILITY FOR THE ENSUING YEAR. THE GROUPS WERE TO DETERMINE THE STATUS AND PROBLEMS OF THEIR AREAS BY USE OF QUESTIONNAIRES, SURVEYS, AND LIBRARY RESEARCH. AN IMPORTANT RESULT WAS THE DISCOVERY OF AREAS WHICH DESERVE PARTICULAR SCRUTINY BECAUSE OF THEIR CRUCIAL IMPORTANCE OR BECAUSE OF LACK OF EXACT INFORMATION. A NATURAL OUTGROWTH OF THIS SURVEY WILL BE A SERIES OF MORE LIMITED, BETTER-CONTROLLED STUDIES DESIGNED TO ANSWER SPECIFIC PRESSING QUESTIONS. THIS NATIONAL SURVEY HAS DEMONSTRATED THAT RESEARCH ACTIVITY IN THE PUBLIC SCHOOLS CAN AND MUST BE INTENSIFIED. MANY OF THE UNANSWERED QUESTIONS AND THE UNSOLVED PROBLEMS REVEALED BY THE DATA OF THE SURVEY REQUIRE SYSTEMATIC RESEARCH TO PROVIDE ANSWERS. (JL)

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Public School
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A Special Report Prepared with Support
of the United States Office of Education
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by the Research Committee of the
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Foreword

One of the avenues for improving the quality of American education is the continuing development of new knowledge and new applications of existing knowledge. Too often the plans for improving education and its various component parts have not been based on scientifically determined knowledge. In so important a process 'best guesses' are not adequate assurance of making significant progress.

Those in the speech and hearing profession have become cognizant of the necessity for conducting long-term and large-scale studies within their discipline in order to obtain factual knowledge. They were aware that about 2.5 million speech- and hearing-impaired children in the U. S. schools were not receiving speech and hearing therapy in 1959. Therefore the profession, in order to assure future growth and to provide services on a factual basis for all speech- and hearing-impaired children, recommended a study concerned with the status of current practices and techniques.

Some of the leaders in the profession accepted the responsibility of conducting a national survey of public school speech and hearing services. The U. S. Office of Education is pleased that it has had the opportunity to support such a research study. We are convinced that in the future, as more attention and funds are devoted to research efforts in this field, the results will be more fruitful than in the past because of the guidance received from the findings reported in this monograph.

Sterling M. McMurrin
U. S. Commissioner of Education

The research reported herein was performed pursuant to a contract with the United States Office of Education, Department of Health, Education, and Welfare.

Preface

Programs of speech and hearing re-education in the public schools of the United States have expanded from a single metropolitan system in 1908 to a nationwide effort in little more than 50 years. In the United States today more than two million school children require remedial services from competently trained speech correctionists and audiologists. Although previous efforts to determine the present-day status of speech pathology and audiology programs and the nature and extent of problems in the field have met with enthusiastic support, little more than highly localized information has been made available. The research task herein reported was designed to ascertain the current status of speech pathology and audiology in the nation's school systems and the problems, administrative and technical, facing persons concerned with speech and hearing re-education in the school environment.

One of the major objectives of the current research effort was to provide the Office of Education, school administrators, supervisors of speech and hearing clinicians, and functioning clinicians with authoritative information about current practices in the public school field. Another major objective was to define unresolved problems, to evaluate the significance of these problems, and to specify which of these can be solved by modern research methods. Two considerations received special attention: (1) to obtain adequate, unbiased samples; and (2) where certain sources of bias could not be avoided, to make allowances in the interpretation of the results.

To the established professional veteran and the beginner, the findings present an overview of current methods and program organization and furnish factual information upon which a new perspective can be based. Important technical and professional problems have been identified and priorities have been assigned for urgently needed research. Space limitations have prevented publication of all the collected data, but provision has been made for future research workers to have access to the unpublished information.

Acknowledgement for support of this project is gratefully accorded to Sterling M. McMurrin, U. S. Commissioner of Education; Lawrence G. Derthick, formerly U. S. Commissioner of Education; Wayne O. Reed, Deputy U. S. Commissioner of Education; Roy M. Hall, formerly Assistant U. S. Commissioner of Education; and David L. Clark, Director, and the staff of the Cooperative Research Branch of the U. S. Office of Education. In this expression of appreciation the Purdue University Project Staff and the ASHA Committee are cognizant of the benefits gained for the members of the American Speech and Hearing Association and the millions of speech- and hearing-handicapped public school pupils in the United States.

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I. Introduction:
The Problem and the Project Procedure

BETTY ANN WILSON

Since 1910, when the Chicago public school system first provided a program of special remedial services for speech-handicapped children (*5*), there has been a substantial increase in local and state support for such programs. By 1953, 30 state Departments of Education (*4*) had established certification requirements for public school speech clinicians[1] and an estimated 4000 individuals were then employed in such positions (*3*). While at least 193 colleges and universities (*2*) purport to provide training in speech pathology and audiology, adequate remedial services for the 2,500,000 speech- and hearing-impaired children attending U. S. schools (*1*) are not being provided. Speech pathology has become a recognized discipline, but continuing re-evaluations must be made to assure adequate future growth.

An initial effort to meet the challenge confronting members of the profession was presented by the American Speech and Hearing Association in the form of a special report, *Research Needs in Speech Pathology and Audiology* (*6*), which delineated areas 'within the profession most urgently in need of evaluation and research.' Throughout this report the desirability of conducting long-term and large-scale studies, especially those relating to current practices and techniques, was repeatedly stated. With full cognizance of the need for such descriptive research, the U. S. Office of Education awarded a contract to Purdue University Speech and Hearing Clinic to conduct the National Survey of Public School Speech and Hearing Services, and American Speech and Hearing Association members became strong supporters of and participants in this investigation.

The purpose of this project was threefold: (a) to describe current practices and trends in public school speech and hearing programs, (b) to ascertain problems which could be resolved by systematic research, and (c) to assign priority orders to these researchable areas.

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[1] The term 'clinician' will be used throughout the Monograph. The editor, faced with the practical necessity of choosing a term for repeated use, selected this one for the following reasons: it is broad enough to include all that public school speech and hearing personnel do—not only therapy but also diagnostic work and counseling, work importantly involving a special kind of relationship, a clinical relationship; it does not connote limited capability and therefore the need for close and continuing supervision.

Betty Ann Wilson (Ph.D., Purdue University, 1953) is Associate Professor of Speech, Purdue University. She served as Assistant Project Director, National Survey of Public School Speech and Hearing Services.

Planning of Work Groups

The initial planning conference was held in May, 1959. A representative from the U. S. Office of Education, members of the ASHA Research Committee and the ASHA Public School Advisory Committee, and the Purdue Project staff participated in this meeting. Prior to this time state directors, university personnel, and public school clinicians had recommended individuals to participate in the project and provided suggestions for organizing the research. The Planning Committee established nine work group areas and appointed 27 public school workers and nine college- or university-affiliated people as core committee members. Each member of the Public School Advisory Committee assumed the chairmanship of one of these work groups. In order to promote unity among the various committees, a two-dimensional chart indicating the specific areas to be investigated was devised (see Appendix A).

On November 14, 1959, an all-day conference for public school personnel was held at the ASHA Convention in Cleveland. During the general orientation meeting, attended by approximately 400 persons, the purposes of and the design procedures to be used in the survey were presented and discussed. Work groups then met independently to begin their assigned tasks.

A primary task for the research work group was to locate and organize sources of information. State and city supervisors of speech and hearing programs were asked to indicate, by means of a check list, the kinds of information readily available in their offices. These individuals supplied copies of licensing or certification requirements, the statutory regulations relative to public school speech and hearing programs, the provisions for financial reimbursement from the state, the names of training institutions offering degrees in speech pathology and audiology, and mailing lists of public school clinicians.

A pilot questionnaire was devised by the resident staff and submitted to all public school clinicians in four states: Florida, Indiana, Texas, and Wisconsin. A follow-up letter was written to those individuals who did not return the questionnaire within two weeks. Ultimately 83% of the clinicians responded to this preliminary questionnaire. The main function of the pilot questionnaire was to point up difficulties which might be encountered in eliciting specific information from respondents and to establish patterns for future analyses.

The experience gained from the preliminary investigation facilitated the compilation of the later questionnaires. Approximately 200 ASHA members submitted questionnaire items to the 36 members of the nine work groups. Each of these groups was charged with the responsibility of devising questions relative to one segment of the total problem, as follows:

I Clinical Practice: Remedial Procedures
II Clinical Practice: Diagnosis and Measurement
III Program Management: Schedules, Reports, Budgets
IV Administration and Supervision
V Speech Improvement
VI Professional Standards
VII Recruitment
VIII Professional Definitions and Relationships
IX Research

The work group members refined the items and submitted them to the Project staff at Purdue University. From the scores of items received, 224 were selected and formulated into five separate questionnaires (see Appendixes B through F).

Organization of Questionnaires

It was deemed essential to sample adequately public school speech and hearing clinicians and to collect a considerable amount of information from them. Rather than use one questionnaire and request clinicians to respond to an unreasonable number of items, the Project staff designed two separate questionnaires, I-A and I-B. This procedure provided, in addition, an opportunity to secure reliability estimates on the basis of two samples.

Questionnaire I-A (Appendix B), for Public School Speech and Hearing Personnel, provided opportunity for the responding clinicians to identify themselves in terms of age, sex, title, salary, training, experience, and types of students seen in therapy. The other 56 major questions dealt with administrative and diagnostic procedures.

Questionnaire I-B (Appendix C), for Public School Speech and Hearing Personnel, contained a repetition of the same background items. In addition, items dealt with the evaluation of training received by clinicians and with remedial procedures utilized by them.

Questionnaire II (Appendix D), for Speech and Hearing Supervisory Personnel, was designed for supervisors at the city, county, and state levels. In addition to answering questions relating to training, experience, and professional duties, this group of respondents provided data regarding licensing and certification requirements, recruitment programs, reimbursement policies, research projects, and recording and reporting procedures.

Questionnaire III (Appendix E), for Academic Institutions which Offer Training Applicable to Public School Speech and Hearing Therapy, was designed to provide information relative to facilities, staff, students, and courses at various training centers.

Questionnaire IV (Appendix F), for Speech Improvement Teachers, was designed to investigate current speech improvement programs and to ascertain the training and pedagogical procedures of those individuals currently involved in such programs.

Procedure for Sampling Clinicians

Many sampling procedures were considered by the Project staff. It was concluded that maximum information could be obtained by structuring the design to take into account geographic regions of the nation, varying sizes of communities within regions, and adequate representation of both male and female speech and hearing clinicians. The result was a 5 x 3 x 2 basic design with five geographic regions, three sizes of communities, and male and female clinicians.

The geographic regions (see Figure 1-1) were delineated in accordance with prevailing sampling practices as revealed by a review of educational surveys conducted by the U. S. Office of Education. The states comprising each of the five regions are indicated below. (Alaska, not yet a state when the study began, was not included.)

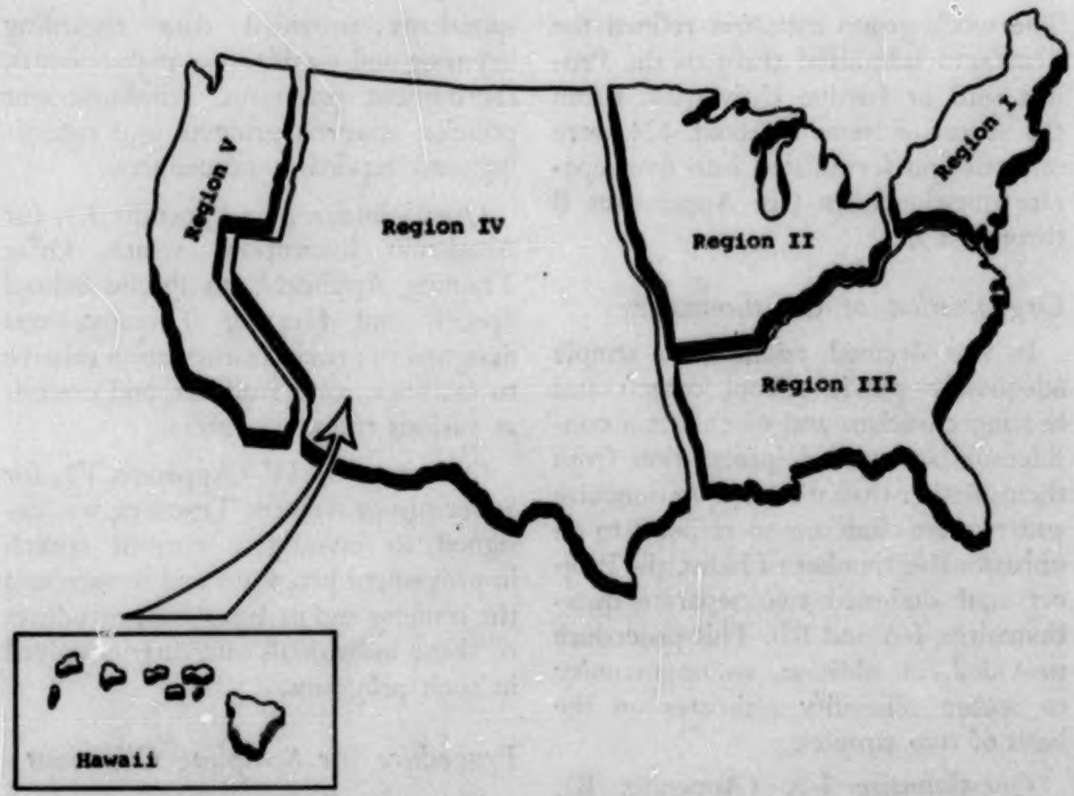

FIGURE 1-1. Five geographic regions into which the United States was divided for National Survey of Public School Speech and Hearing Services.

Region I – Northeast

Connecticut
Delaware
District of Columbia
Maine
Maryland
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

Region II – Midwest

Illinois
Indiana
Iowa
Michigan
Minnesota
Missouri
Ohio
Wisconsin

Region III – Southeast

Alabama
Alaska
Arkansas
Florida
Georgia
Kentucky
Louisiana
Mississippi
North Carolina
South Carolina
Tennessee
Virginia
West Virginia

Region IV – Southwest-Mountain-Hawaii

Arizona
Colorado
Hawaii
Idaho
Kansas
Montana
Nebraska
Nevada
New Mexico
North Dakota
Oklahoma
South Dakota
Texas
Utah
Wyoming

Region V – West Coast

California
Oregon
Washington

Size of community (small, medium, or large) was determined by the number of clinicians employed in the community. This criterion was selected rather than the number of schools served because of its relevance to the aims of the study. For community

Table 1-1. Classification of city and county speech and hearing programs by size of community and number of clinicians employed.

Size of Community	*Number of Clinicians*	
	City	*County*
Small	1 or 2	1-4
Medium	3-7	5 or more
Large	8 or more	None except Dade County, Florida

classification purposes, a distinction was made between cities and counties. Except for Dade County, Florida, which includes Miami, all counties were considered as small- or medium-sized communities. It was reasoned that the organization of large county programs more nearly resembled that of medium-sized cities than of large ones.

The term 'small-sized community' has reference to the situation in which a clinician is virtually on his own and is not subject to professional supervision from members in his school system. The designation 'medium-sized community' refers to one employing several clinicians who work in fairly close proximity but without the professional supervision usually found in larger communities. The classification system employed is presented in Table 1-1.

Sampling Lists. Every effort was made to secure the names and addresses of all public school speech and hearing clinicians in the United States. For many states these lists were provided by representatives of the special education department. In 16 states assistance was offered by the state speech and hearing consultants. State Departments of Health, universities, and state

Table 1-2. Total number of public school speech and hearing clinicians in the United States, by geographic region, size of community, and sex.

Region	*Sex*	*Size of Community*			*Totals*
		Small	*Medium*	*Large*	
Northeast	M	169	97	40	1280
	F	337	298	339	
Midwest	M	187	82	76	1630
	F	497	360	428	
Southeast	M	28	14	12	472
	F	229	118	71	
Southwest-Mountain-Hawaii	M	55	29	12	552
	F	221	108	127	
West Coast	M	68	47	37	610
	F	164	136	158	
Totals		1955	1289	1300	4544

Table 1-3. Proportions of total population of clinicians sampled in the survey, by geographic region, size of community, and sex.

Region	*Size of Community*					
	Small		*Medium*		*Large*	
	M	*F*	*M*	*F*	*M*	*F*
Northeast	1/3	1/3	1/2	1/3	All	1/3
Midwest	1/3	1/4	1/2	1/3	2/3	1/3
Southeast	All	1/3	All	1/2	All	2/3
Southwest-Mountain-Hawaii	4/5	1/3	All	1/2	All	1/2
West Coast	3/4	1/2	All	1/2	All	1/2

speech and hearing associations provided additional names. In a few instances no state agency could provide the necessary information, and it was secured from individual ASHA members. It is apparent that the total of 4544 names listed represented a very large proportion of the total population of public school clinicians working in the United States as of November 1, 1959. The distribution of speech and hearing clinicians according to region, community size, and sex is shown in Table 1-2.

The disproportionate representation of clinicians, by cell, can be seen in Table 1-2. In order to insure adequate representation the Project staff selected the sample from each cell on the basis of a predetermined ratio. Some adjustment of the sampling ratios was necessary, however, in instances where the total representation was small. It was particularly important to make adjustments for the limited number of male clinicians in large and medium-sized communities. The sampling ratios or fractions used are shown in Table 1-3.

As a result of application of the sampling ratios to the cell frequencies of the entire population, a total of 1971 clinicians was selected for inclusion in the final sample. Except in cases where the entire cell population was used, the individuals drawn from any given cell were randomly selected and alternately sent either Questionnaire I-A or Questionnaire I-B. The total number receiving the questionnaires is shown in Table 1-4.

Table 1-4. Number of clinicians comprising sample sent Questionnaires I-A or I-B, by geographic region, size of community, and sex.

Region	*Size of Community*						*Totals*
	Small		*Medium*		*Large*		
	M	*F*	*M*	*F*	*M*	*F*	
Northeast	55	104	46	106	31	168	510
Midwest	64	124	43	124	58	152	565
Southeast	28	77	14	64	12	56	251
Southwest-Mountain-Hawaii	43	73	29	55	12	68	280
West Coast	50	80	43	71	38	83	365
Totals	240	458	175	420	151	527	1971

Three weeks after the initial distribution of Questionnaires I-A and I-B, a follow-up letter was sent to individuals who had failed to return a completed questionnaire. In a few instances a second reminder was necessary.

Returns. The return rate for these basic questionnaires was quite satisfactory: 72% for I-A, 77% for I-B. In I-A the male-female ratio of returns was 30:70, while in I-B it was 31:69. The percentage of returns within sexes, however, revealed a reverse trend: 80% of the males to whom questionnaires were addressed returned them, whereas the return rate for females was 73%.

The return rate was found to be inversely related to the number of clinicians in the community: 82% if only one or two clinicians worked in the community, 75% if three to six were employed there, and 66% if there were seven or more clinicians. The return rate by geographic regions revealed only slight differences: 78% for the Midwest and West Coast and 71% for the other three regions.

Other Sampling Procedures

Questionnaire II was designed to investigate speech and hearing programs from a supervisory frame of reference. Efforts were made to ascertain the names of all individuals whose positions included supervisory responsibilities for public school speech and hearing programs. City, county, and state mailing lists, U. S. Department of Health, Education, and Welfare bulletins on special education personnel, and state and national speech and hearing organization membership lists were used to identify these individuals. Since the total population of supervisory personnel was only 187, no sampling procedure was employed. Instead Questionnaire II was distributed to each of these individuals. Seventy-five per cent of these questionnaires were completed and returned.

Questionnaire III was designed to derive information relative to facilities, numbers of students, and types of training offered in the field of speech and hearing therapy. University catalogues and directories of institutions of higher learning were used to identify those institutions offering training applicable to public school speech and hearing clinicians. Officials from state departments of education were requested to indicate training institutions within their respective states. Subsequently Questionnaire III was distributed to 170 colleges and universities. Ninety-nine per cent of these questionnaires were completed and returned.

Initially it was felt that items relating to speech improvement should be excluded from Questionnaires I-A and I-B. This decision was based on the assumption that programs of speech improvement are not an integral part of the majority of public school remedial speech and hearing programs. This assumption subsequently proved tenable in most instances as 61% of the clinicians reported no speech improvement work in their schools.

Questionnaire IV was prepared for distribution to large communities known to have active speech improvement programs. The communities selected and the numbers of potential respondents in each community are designated below:

Arlington, Virginia	80
Brea, California	25
Des Moines, Iowa	50
Hartford, Connecticut	50
Hingham, Massachusetts	78
New York, New York	80
Wauwatosa, Wisconsin	36
Wichita, Kansas	30
Youngstown, Ohio	38

Thus, a total of 467 individuals received Questionnaire IV. The return rate of 53% was lower than that of any other questionnaire. It may be of significance to note that only 8% of those who responded were ASHA members. Presumably ASHA membership might have been even less well represented among those who failed to respond.

A total of 2019 questionnaires was ultimately returned to the Project headquarters at Purdue University for analysis. Data derived from each completed questionnaire were coded and card-punched in order to facilitate analysis by computer methods.

Statistical Analysis

The data for each item in the questionnaires were analyzed with regional breakdown as the primary control. The basic analysis performed on these data was the determination of response proportions to each questionnaire item. In some instances, however, measures of central tendency were also derived. In addition, a number of inter-item tabulations were performed in order to aid in further interpretation of the primary findings.

In these analyses Questionnaires I-A and I-B presented a special case as a result of the complex sampling procedure utilized. In the treatment of these data corrections for disproportionality of representation were applied in order that the conclusions drawn from the results of these two questionnaires might be validly extended to the entire parent population. It should also be noted that the first nine items of both questionnaires were identical and provided a means of assessing the adequacy of the sampling procedure for this population.

Following the statistical analysis, over 700 tables were prepared and distributed to the various work group members.[2] The work groups then selected information pertinent to their designated areas of responsibility and prepared preliminary reports. These reports were presented on November 1, 1960, at a second all-day conference conducted as a part of the ASHA convention at Los Angeles. This meeting was attended by approximately 1000 clinicians, administrators, and teachers interested in public school speech and hearing therapy.

Since most open-ended and opinion-type questions had been deleted from the five prepared questionnaires, work group members were encouraged to supplement the collected data by means of personal interviews. Information thus obtained could be included in the final reports prepared by each work group and submitted to the Project staff by February 15, 1961. The final work group reports were edited, reviewed by members of the Project staff, and submitted to the ASHA Committee on Research. Final editing was then accomplished.

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[2] These basic tables as well as the punched cards from which they were derived are stored at the Speech and Hearing Clinic, Purdue University. Inquiries concerning their use should be directed to the Project Coordinator at Purdue University.

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II. The Public School Clinician: Professional Definition and Relationships

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GLADYS McISAAC

The first goal of Work Group VIII was to secure information descriptive of the titles, training, work environment, and professional status of persons working with speech and hearing disorders in the public schools. The second purpose was to learn what persons within and outside of the school situation contribute to the public school speech and hearing program. Although questionnaires completed by over 1400 clinicians were the primary vehicle for the gathering of information, committee and subcommittee members also interviewed 54 individuals in 16 states. The data presented below, representing large and small urban school systems as well as programs in rural areas, constitute (a) a definition of the professional public school clinician and (b) a delineation of his professional relationships. Comparable data pertaining to supervisors of speech and hearing programs were compiled by Work Group IV and are presented in Chapter III.

Professional Definition

The problem of professional definition involves an examination of the individual who works with children who have speech and hearing difficulties—his age, title, salary, and preparation—as well as of the situation in which he is employed and of the kind of work he does.

Professional Titles. According to the replies to the questionnaires sent to practicing clinicians, the title of 'speech therapist' has fairly well permeated the school system. Over 56% employ this title while 26% use the term 'speech correctionist.' The use of the latter term is most frequent in the Midwest, where 40% are so called. No objection to the designation 'therapist' was expressed; in fact a few respondents who are not so designated state that they would prefer such a title. No

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respondent uses the title of 'speech pathologist' and only 1% are called 'speech clinicians.'

It is interesting to note that the present effort by the American Speech and Hearing Association to find a substitute for the term 'therapist' has so far had little impact on the public school, either to effect a change in the title by which public school speech and hearing personnel are known or in the attitudes of the personnel so named.

Age, Experience, and Salary. Speech and hearing personnel are relatively young, as shown in Figure 2-1. Over 60% are 35 years of age or under. Regional differences are marked: the younger group is predominant in the Midwest, with 40% between 20 and 25 years of age; over 40% on the West Coast are over age 40 while only 12% there fall in the 20-25 year range. Across the nation 26% are over 40 years old. Almost three-fourths of the personnel are women.

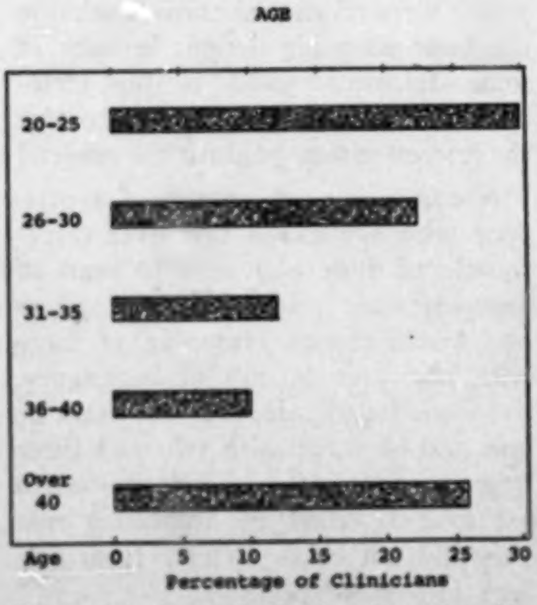

FIGURE 2-1. Ages of clinicians in nationwide sample responding to National Survey questionnaires (N = 1462).

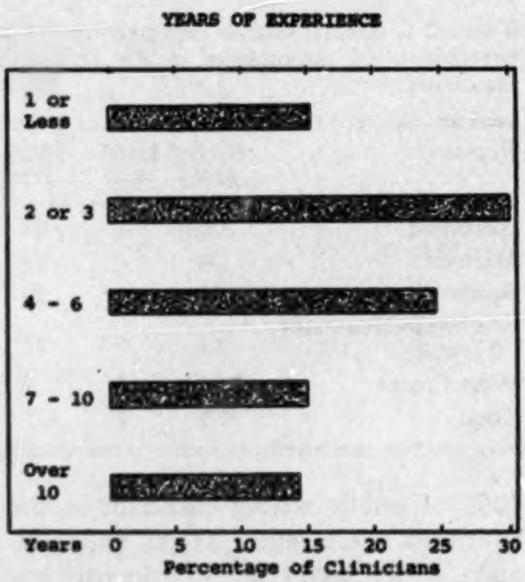

FIGURE 2-2. Length of experience of clinicians in nationwide sample (N = 1462).

These clinicians are also young in terms of experience, as shown in Figure 2-2. Seventy per cent report that they have had less than seven years of experience; 16% have had one year or less of experience while 15% have had between seven and 10 years of experience and 13% have had over 10 years of experience.

The majority (57%) of public school personnel receive an annual salary of between $4000 and $5500, while 27% receive salaries of over $6000. The regional and national breakdown of salaries is presented in Table 2-1, and the national breakdown is shown in Figure 2-3. It can be seen that on the West Coast a much higher percentage receive salaries in the highest bracket than in the other geographical regions, possibly in part because of the higher average age level of the personnel and in part because of a generally elevated salary scale for teachers. In contrast

TABLE 2-1. Annual salaries reported by 757 public school speech clinicians. Values represent percentages of respondents in the geographical regions shown who reported earnings as indicated.

Region	*Under $3500*	*$3500-3999*	*$4000-4499*	*$4500-4999*	*$5000-5499*	*$5500-5999*	*$6000-6499*	*$6500-6999*	*$7000 or more*
Northeast	0	1	11	27	17	9	13	7	15
Midwest	0	0	18	30	19	10	5	5	13
Southeast	10	24	29	13	10	6	2	5	0
Southwest-Mountain-Hawaii	1	6	37	17	24	8	5	2	0
West Coast	0	0	4	11	14	11	11	11	38
Total	1	3	17	23	17	9	8	6	14

10% of public school clinicians in the Southeast make under $3500, and 34% make under $4000, possibly in part because of the fact that their experience is more limited and in part because of a generally lower salary scale for teachers.

Salaries of clinicians are reported to be affected predominantly by length of experience according to 39% of 705 clinicians responding, by the degrees they hold according to 11%, by both of these according to 41%. The relationship between salary earned and amount of experience can be seen in Table 2-2. (This table must be interpreted with caution as no correction has been made for disproportionality; the cross-tabulation has been made for the total group of 757 respondents regardless of geographical area, sex, or size of community groupings, all of which were taken into consideration in the basic sampling design. In spite of some distortion which is thus introduced into the data, it is presented for the interest it may hold for the reader.)

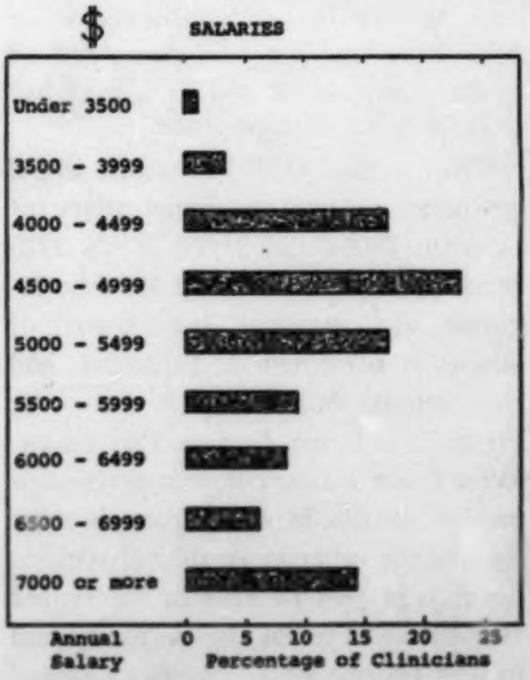

FIGURE 2-3. Annual salaries earned by clinicians in nationwide sample (N = 757).

A comparison of amount of experience with age shows that over three-fourths of those with over 10 years of experience are over 40 years of age, as one would expect. However, of those with one year or less of experience, over one-fourth are over 25 years of age, and of those with two and three years of experience, about one-fourth are over 31, their age indicating that they did not come directly from college into these positions.

When asked if they had been classroom teachers before working with

Table 2-2. Relationship between amount of experience and annual salary reported by 757 clinicians. Values represent percentages of the number of clinicians falling within each salary bracket. Total number of clinicians within each bracket is indicated in parentheses.

Annual Salary	*Amount of Experience in Years*				
	1 or less	*2 or 3*	*4-6*	*7-10*	*Over 10*
Under $3500 (10)	30	30	30	0	10*
$3500-3999 (30)	30	40	23	3	3
$4000-4499 (123)	34	43	15	8	0
$4500-4999 (162)	24	48	19	7	2
$5000-5499 (127)	9	36	37	10	6
$5500-5999 (75)	4	24	33	32	7
$6000-6499 (59)	2	15	44	30	8
$6500-6999 (52)	0	2	25	40	31
$7000 or more (115)	2	3	16	22	57

*It should be noted that this value represents a single individual.

speech and hearing disorders, 25% replied that they had been elementary teachers, 10% secondary teachers. In all, 42% replied that they had previously been teachers. Regional differences with regard to this question impel speculation. Only 26% in the Midwest, 44% in the Northwest, 59% in the Southeast, and a large 63% on the West Coast have previously been classroom teachers. The influence of early state requirements no longer current may be reflected here; some requirements used to stipulate that the individual had to have two years of classroom teaching before entering a specialized field. The preference of employing agencies for experienced classroom teachers and recruitment from the ranks of regular teachers may also help explain regional differences. Recruitment from the classroom may be indicated also by the fact that 33% of the individuals questioned decided on this profession after graduation and had to return to college for further preparation.

With regard to the level of training of speech and hearing personnel, it

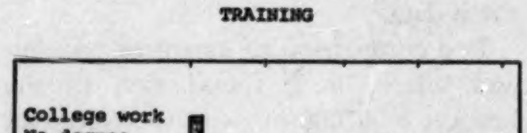

Figure 2-4. Level of professional training of clinicians in nationwide sample (N = 705).

was found that 21% hold the bachelor's degree, 37% have had work above this level, 12% have the master's degree, and 28% have taken courses beyond the master's degree (see Figure 2-4). It can be said that only 40% of public school speech and hearing personnel have a background of preparation adequate to meet the standards for advanced certification set by the American Speech and Hearing Association. Some regional differences are shown with regard to level of preparation: 73% of those in the Midwest are trained below the master's degree level; in all the other regions between 40 and 50% are prepared at or above the master's degree level. The fact that there is a high percentage of young teachers in the Midwest is no doubt related to these data.[1]

In a comparison of extent of training and salary, it is found that in the bracket of $7000 or over, three-fourths of the clinicians hold at least the master's degree. In general, increase in salary reflects increase in training.

The immediate supervisor of 24% of the clinicians is the superintendent of schools; of 11%, the principal; of 31%, the director of special education; of 21%, the supervisor of speech and hearing; and of 11%, an intermediary administrative person. Forty-four per cent indicate that their supervisor has had some background of training in speech and hearing. Approximately one-fourth of the respondents evaluate their supervision as excellent, and one-half think it adequate; the remaining one-fourth indicate that their supervision leaves much to be desired. One-third of the clinicians report that their immediate supervisor never observes therapy. Another 51% indicate that their supervisor observes only occasionally (one to three visits a year.)

With regard to membership in professional associations, 64% belong to or have applied for membership in both their state speech and hearing association and the American Speech and Hearing Association. Twenty-five per cent belong to their state association only, while 10% belong to neither group. Regional differences are small.

Job Description. Asked to describe their regular duties, 98.5% listed speech therapy. About 35% do 'hearing therapy' regularly, another 35% occasionally. Hearing testing is done by about 20% regularly, by another 35% occasionally. Only 2% do psychological testing regularly or occasionally.

With regard to hearing testing, regional differences are rather marked. In the Northeast only about 9% do hearing testing regularly and on the West Coast only 11%; the percentages are nearly trebled in the other regions. Audiological screening is done nationwide by speech and hearing personnel in 21% of the situations, by school nurses in 47%, by school audiologists in 1%, by physicians in 2%, and by county health department personnel in 13% of the situations. In the Southeast and Southwest-Mountain-Hawaii regions a greater share of this responsibility is borne by speech and hearing personnel than in the other regions (about 35%). On the West Coast county health department personnel are seen to play a larger role than in the other areas (30%). In all regions except the Southeast nurses carry by far the largest share of responsibility for audiological screening.

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[1] It should be pointed out that it is possible for a person to hold a master's degree in speech pathology and audiology without having completed an undergraduate major in this area. The fact that he has attained a master's degree, then, cannot be taken to mean that the holder necessarily has substantially more specialized knowledge and experience than the holder of a bachelor's degree who majored in the area.

The average current therapy caseload reported by 1462 clinicians nationwide is approximately 130 children, with 111 being seen at least weekly on the average. Of these 111 children, 10 are seen individually each week and 101 are seen in groups of four or five, usually twice a week though in some cases only once a week. A fuller treatment of caseload selection, composition, and scheduling is presented in Chapter IV.

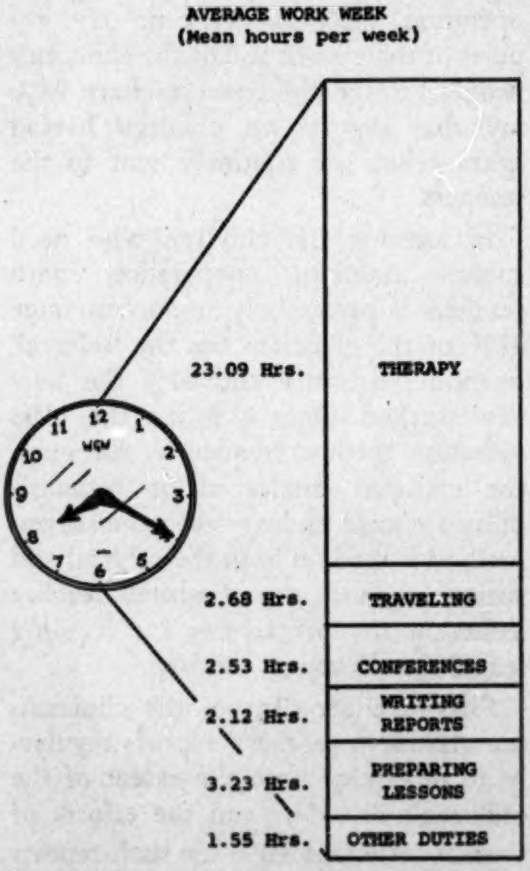

Figure 2-5. Composition of average work-week of clinicians in nationwide sample (N = 705).

Table 2-3. Mean number of hours per week devoted to various activities by 705 clinicians.

Activity	*Mean Number of Hours*
Therapy	23.09
Traveling	2.68
Conferences	2.53
Writing reports	2.12
Preparing lessons	3.23
Other duties	1.55

A description of the distribution of the clinician's working time during the week helps to define his job. Table 2-3 and Figure 2-5 show the average number of hours weekly devoted to various activities by 705 clinicians from all geographic regions. The average work week consists of about 35 hours; about 65% of this time is devoted to therapy.

Members of the profession report wide variation in conference, coordination, or office periods. Thirteen per cent use a full day, 52% have a half-day for these purposes, and 18% have no time allotted for them. The remainder were not specific in their replies, indicating 'other' or 'informal.'

Table 2-4. Evaluation by 705 clinicians of various aspects of their working situation. Values represent percentages of respondents replying as indicated.

Aspect of Position	*Excellent*	*Adequate*	*Wanting*
Therapy rooms	12	36	50
Equipment	19	49	31
Materials	23	54	21
Supplies	28	52	18
Salary	10	58	29

The ways in which practicing school clinicians evaluate certain aspects of their working situation are presented in Table 2-4. Their expressed discontent is impressive: half believe that they are carrying on their programs in rooms not conducive to a good therapeutic result, 31% find their equipment inadequate, about one-fifth report their materials and supplies inadequate, and 29% feel they are underpaid. In face-to-face interviews a substantial number of informants reported lack of facilities. A frequent complaint is that clinicians must carry everything everywhere, there being no room designated for their services or designed for their needs.

Professional Relationships

In his professional activities the public school speech and hearing clinician must maintain efficient working relationships with other individuals concerned with handicapped children: the classroom teacher, the school nurse, and the physician. In addition, because of the influence of the home on the attitudes of the children toward their problems and upon their efforts to overcome them, the parents must receive reports and participate in conferences. The clinician often makes referrals to physicians, psychologists, orthodontists, and various cooperating agencies in the community. His relationships, therefore, are found within the school context, with parents, and with the personnel of outside agencies.

The clinicians report that within the school systems they receive most professional assistance from classroom teachers and school nurses. The various individuals making major contributions are ranked in terms of the amount of assistance they give as follows: classroom teachers, 34% (that is, 34% of the clinicians state that they have received most professional assistance from classroom teachers); school nurses, 27%; psychologists or guidance personnel, 15%; principals, 9%; superintendents, 3%.

Relationships with Teachers. With regard to their contacts with classroom teachers who have pupils with speech and hearing problems, 16% of the clinicians believe that they should have regular conferences with them, while 32% favor occasional discussions; 51% prefer informal meetings which develop when the need for exchange of information and planning arises. Sixty-four per cent state that their relationships with classroom teachers are excellent, and 34% consider them satisfactory, a high total percentage indicating cooperation. Fifty-six per cent send reports of their work and of the children's progress to the classroom teachers; 93% say that reports on children having hearing loss are routinely sent to the teachers.

In locating the children who need speech training, cooperation with teachers is particularly important since 68% of the clinicians use the 'referral' method frequently and 64% the 'survey' method. Only 12% use the 'class visitation' method frequently. Although the clinician carries major responsibility for case finding when the survey method is used, in both the referral and survey methods the classroom teacher assists in the procedures for locating speech-handicapped children.

Fifty-five per cent of the clinicians use classroom teachers' reports regularly to determine both the extent of the children's disorders and the effects of therapy. Another 40% use such reports occasionally.

Communication between the class-

TABLE 2-5. Percentages of 705 clinicians making referrals to agencies shown with frequency indicated.

Agency	*Frequency of Referral*			
	Frequently	*Occasionally*	*Never*	*Agency Not Available*
College or university clinic	17	60	10	10
Other speech and hearing clinics	11	53	19	15
Other rehabilitation agencies	12	59	14	12
Medical profession	41	50	4	3
Psychological services	33	53	6	6

room teacher and speech and hearing personnel seems, therefore, to be a two-way process, with the clinician reporting to the teacher and receiving help from the teacher in locating children and assessing their improvement.

Relationships with Parents. In commenting on their relationships with the parents of speech-impaired children, 40% of the clinicians express the belief that they should establish contact with all of the parents; 46% state that contacts should be made with most parents; 12% confer only with the parents of the most severely handicapped. Parents must approve the admission of their children into the remedial speech program in 32% of the situations. Twenty-four per cent of the clinicians indicate that they use parents' reports of the effects of therapy regularly and 69% use such evaluations occasionally. In turn 49% submit regular reports to parents, but 48% do not.

No information was gathered through questionnaires with regard to the existence of parents' groups where education and free discussion can take place. In the interviews speech correctionists indicated that educational programs for parents are rare. Most said that they are so short of time and have such poor facilities that they cannot initiate such programs and have difficulty even in arranging conferences with parents.

Relationships with Outside Agencies. Table 2-5 shows the frequency with which 705 clinicians make referrals to outside agencies. The majority use all referral agencies at least occasionally although 10% or more have no speech clinic or rehabilitation agency available.

Medical referrals for children who have hearing difficulties are made as follows: 50% of clinicians refer all who fail audiometric screening, 17% refer those who appear to have a mild loss, 22% refer those who display a moderate loss, and 4% refer only those who have a serious loss.

Information was not gathered concerning the satisfaction gained by the clinician from referrals to outside agencies, methods and extent of exchange of diagnoses and reports, or the clinicians' knowledge of resources available within their communities. The potential in professional relationships warrants further exploration.

TABLE 2-6. Quality of relationships with other professional personnel as reported by 705 clinicians. Values represent percentages of clinicians.

Professional Persons	*Quality of Relationship* *Excellent*	*Satisfactory*	*Other*	*No Contact*
Classroom teachers	64	34	1	0
Principals	66	32	1	0
Superintendents	41	26	2	30
School psychologists, guidance counselors	49	29	4	17
School nurses	61	29	2	8
School physicians	12	20	2	65
Other speech clinicians	66	17	2	14

Evaluation of Relationships. Clinicians were asked to evaluate the quality of their relationships with various professional workers. Their responses are presented in Table 2-6. Their reports suggest that the clinicians are fairly secure in their contacts and that from their point of view the atmosphere is generally one of good cooperation.

In face-to-face interviews clinicians reported that their professional relationships are generally satisfactory and advantageous to them. Nurses are reportedly cooperative but often passive. Contacts with school physicians usually have to be made through the nurse. Clinicians frequently report that physicians often appear to lack understanding of speech and hearing problems. In some school systems psychologists are not trained beyond the level of psychometrists and can give little help with management of disturbed children. The same is true of some guidance personnel. Few districts employ a school social worker. Interdisciplinary case conferences are rare but are considered highly desirable. It would appear that each discipline needs to know more about the training and services of the others.

Clinicians were asked to evaluate their formal theoretical training in professional relationships. Seventy per cent think that their training was good, 22% consider it to have been fair, and 6% believe it to have been poor. Sixty-three per cent state that their practicum in this area was good while 26% call it fair and 8% call it poor. In the interviews clinicians recommended more supervised practice in matters involving relationships with colleagues in related disciplines.

Discussion

A review of these data and the data pertaining to program supervisors (Chapter III) points the way to much that is needed in the way of research and decision-making involving the best judgment of the leaders in the profession. The very title which is most frequently used and favored by public school speech and hearing personnel has recently proved highly disadvantageous to many of the members of the profession. Clearly there is an urgent need for strong leadership and definitive action on the matter of nomenclature.

The information this research furnishes regarding the training and experience of workers in the field, the types and numbers of cases handled, and details of program management contributes significantly toward a definition of the role of the speech and hearing clinician in the public school setting. But the lack of uniformity reported in such things as the type and amount of supervision, the variety of practices in services to students with impaired hearing, and the dim and uncertain lines which divide speech correction and speech improvement (see Chapter VII) emphasize the need to clarify the profession's self-concept.

Similarly there is a clear and urgent need to clarify the professional image in the minds of colleagues in related disciplines. Both the questionnaire data and especially the interviews point up the fact that physicians, nurses, psychologists, and even administrators and classroom teachers often have only a meager understanding of the academic and clinical background of speech and hearing specialists. Consequently they lack an appreciation of the services these workers are prepared to give. Study is needed to determine the most effective ways to counteract this lack of understanding. Obvious suggestions are in-service training programs, attractive survey courses in training institutions for classroom teachers and administrators, much more publishing by members of the profession in general education journals and those of related specialties, an increase in speaking engagements before other professional groups, and an increase in referrals and improvement in the manner of handling them.

Certainly one of the best ways to educate professional colleagues without offending is through high-level performance in referrals and as an effective member of an interdisciplinary team. Interviews indicate that public school speech and hearing personnel consider the team approach highly desirable but find the opportunities for participation discouragingly limited. In many settings such people as clinical psychologists, social workers, and physical therapists are not available. The second major hindrance is the clinician's lack of time and facilities to accomplish an effective job in these relationships.

Associated with the crucial problem of time for good professional relationships is the question of caseload. A review of the amount of time designated as conference or office time, the size of the caseload, and the grade levels represented in the caseload points dramatically to the need for further research to help establish with authority the best way for a public school speech and hearing clinician to spend his time. In order to find more definitive answers to questions about the best procedures in public school speech and hearing programs, continued objective research is needed. In addition, there would seem to be real merit in studying and reporting on the procedures used in those highly developed programs which are operating smoothly and effectively.

Training institutions can improve their instruction in professional relationships—indeed in many areas—by maintaining close contact with their graduates and inviting them to submit constructive criticism of the training they received in college. What could be more helpful than a procedure through which loyal alumni, after a year or two on a job, inform their former professors of those aspects of their work for which their preparation was least adequate? Among other things which this type of contact would accomplish is the continued reminder to college and university personnel that 81% of the caseload in public school remedial speech programs is made up of articulation cases. When 64% of training institutions report that three-fourths or more of their last year's bachelor's and master's level graduates were employed by public schools, this fact becomes crucial in the planning of training programs.

Both professional definition and relationships are vitally affected by the amount and type of preparation of speech and hearing clinicians and their supervisors. The data on ASHA membership and certification of public school speech and hearing personnel indicate a serious gap between the conditions which exist and those considered desirable—or even mandatory—by leaders in the profession. Surely great wisdom must be exercised in appraising besetting problems as professional personnel work vigorously—yet patiently and realistically—toward improving clinical standards and services to students in the public schools.

Summary

The individuals working directly with speech and hearing disorders in the public schools prefer the title 'speech therapist.' Sixty-two per cent are 35 years of age or younger. Almost three-fourths are women.

The majority receive a salary of between $4000 and $5500, but 27% receive salaries of over $6000. Salaries are determined primarily by length of experience and level of preparation (degrees held). Seventy per cent have had fewer than seven years of experience. Forty-two per cent have been classroom teachers before entering the speech correction field. Forty per cent hold the master's degree and have completed courses beyond this level. Forty-six per cent hold a state certificate and 40% hold certification in ASHA. Sixty-four per cent belong to state and national professional speech and hearing associations.

Almost all of the respondents do speech therapy, and 35% do hearing therapy regularly. Only 19% test hearing regularly. About one-fourth of public school speech and hearing personnel work at all school levels; a little over one-third work in grades from kindergarten through sixth grade, and one-third in kindergarten through ninth. Only 2.5% work exclusively at the secondary level.

The average caseload is about 130 children. Most clinicians see the children, individually or in groups of four or five, twice a week. However, 33% meet them only once a week. Eighty-one per cent of the caseload is made up of children with articulatory problems; 6.5% are stutterers.

Fifty-three per cent of the clinicians serve from three to six schools. On the average the therapist works 35 hours a week, 23 of these hours in therapy. A substantial number of clinicians indicate a serious need for improvement in the space and equipment provided them.

The professional relationships of public school speech and hearing personnel lie within the school, with parents, and with the personnel of outside agencies. Within the school the classroom teacher and the school nurse are the most helpful. Most clinicians believe that their relationships are excellent with teachers and most prefer informal discussions to regular conferences. Fifty-six per cent send reports on the children's speech problems and therapy to teachers, and 55% use teachers' reports on the seriousness of disorders and on progress.

With regard to relationships with parents 40% believe that contact should be established with all parents, another 46% with most parents. Parents' reports are used regularly by 24%, occasionally by 69%; 49% submit regular reports to parents, while 48% do not.

The majority of clinicians use all available referral agencies at least occasionally. Most referrals are made to the medical profession. Most clinicians believe that they had good training in the area of professional relationships.

III. Supervision of Speech and Hearing Programs

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The preceding chapter has presented a description of the job of the public school speech and hearing clinician, together with a delineation of his training, experience, salary, and professional relationships. The present chapter, comprising the report of Work Group IV, reviews the duties of supervisors of public school speech and hearing programs and summarizes some of the current practices in the administration of these programs. The following chapter presents additional data concerning the organization and management of the programs whose personnel are described in Chapters II and III.

Questionnaires were sent to supervisory personnel in all five geographic regions of the country. A total of 141 supervisors responded; of these, 40 (28%) function at the state level and 101 (82%) at the county or city level (hereafter termed the *local* level). In this report the responses of these two groups will, when appropriate, be presented separately as it is apparent that the duties of supervisors at the two levels are quite different and their contacts with children and teachers and other personnel are of a different order.

Description of Personnel

Professional Titles. Of the 141 supervisors who responded, 34% hold the title of 'Director' or 'Supervisor of Special Education.' A total of 42% are called either 'Supervisor' (24%), 'Director' (5%), 'Coordinator' (9%), or 'Head' (4%) of 'Speech and Hearing.' Sixteen per cent are called 'Consultants in Hearing,' and the remainder hold a variety of titles. The name 'supervisor' is used with much greater frequency in the Southeast and Northeast than in the other geographic regions.

Age, Salary, and Experience. As shown in Figure 3-1, the majority of supervisory personnel (60% overall) are over 40 years of age: 50% of state

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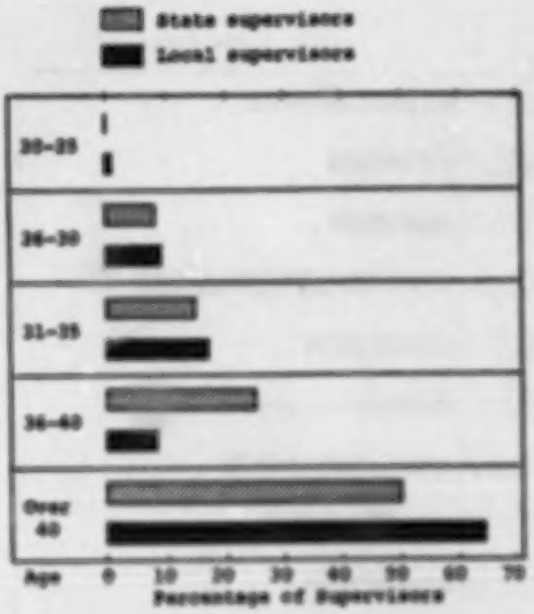

FIGURE 3-1. Ages of program supervisors in nationwide sample. State supervisors, N = 40. Local supervisors, N = 101.

supervisors and 64% of local supervisors are over 40. Twenty-nine per cent are between 31 and 40 years of age; only 9% are under 30 years of age. There is an almost equal distribution of men and women in supervisory positions.

Table 3-1 and Figure 3-2 indicate how the salaries of state and local supervisors are distributed. Approximately 25% of the entire group of 141 supervisors report annual salaries of less than $7,000, while 15% report salaries of over $10,000. As in the case of clinicians (see Table 2-1, Chapter II), the salary scale for supervisors is highest on the West Coast, lowest in the Southeast region. In a cross-tabulation of age and salary one finds that 71% of the supervisors earning a salary of over $10,000 are over 40 years of age.

The great majority of supervisors indicate that they hold a master's degree and have done additional graduate work (80% of state, 73% of local supervisors). However, 14% of local supervisors hold the doctorate while only 8% of state supervisors have training at that level (see Figure 3-3).

TABLE 3-2. Distribution of total years of experience in all situations (as public school clinicians, clinicians in other situations, supervisors of public school clinicians, college teachers, etc.) of supervisory personnel. Values represent percentages of total of 141 supervisors responding.

Years of Experience	%
0-4	3
5-9	26
10-14	21
15-20	18
21-25	10
26-32	7
33 or more	9

Seventy-one per cent of all the supervisors receiving annual salaries of over $10,000 have graduate training beyond the master's degree and the remaining 29% hold the doctorate.

TABLE 3-1. Annual salaries reported by 40 state and 101 local supervisors of speech and hearing programs. Values represent percentages of respondents who reported earnings as indicated.

Level of Supervision	*Under $6000*	*$6000-6499*	*$6500-6999*	*$7000-7499*	*$7500-7999*	*$8000-8499*	*$8500-8999*	*$9000-9499*	*$9500-9999*	*Over $10,000*
State	7	10	15	7	12	10	5	8	18	8
Local	10	6	6	15	7	11	11	9	7	18

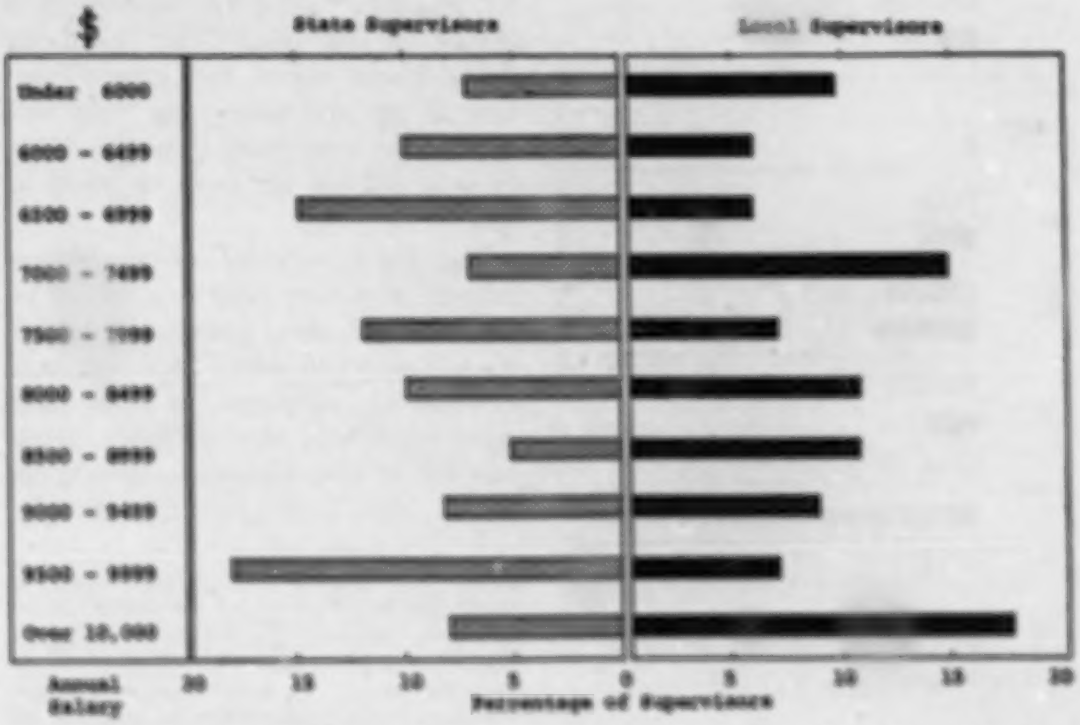

FIGURE 1-2. Annual salaries earned by program supervisors in nationwide sample. State supervisors, N = 40. Local supervisors, N = 101.

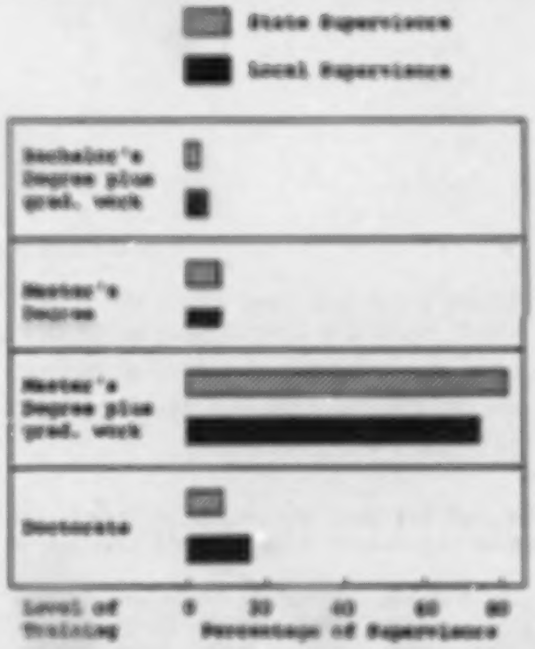

FIGURE 1-3. Level of professional training of program supervisors in nationwide sample. State supervisors, N = 40. Local supervisors, N = 101.

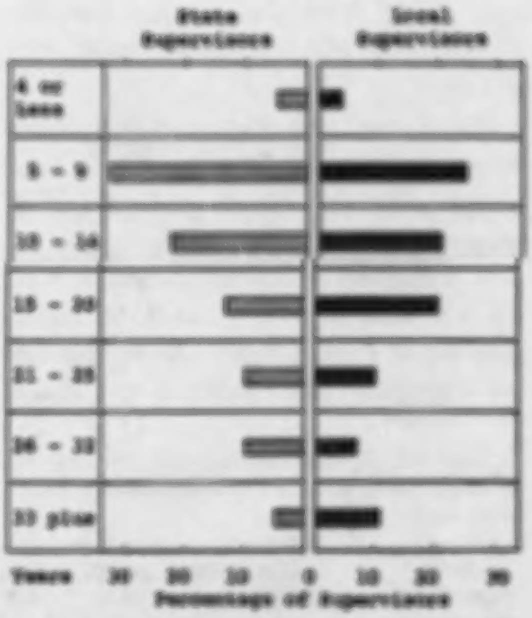

FIGURE 1-4. Length of experience of program supervisors in nationwide sample. State supervisors, N = 40. Local supervisors, N = 101.

TABLE 3-3. Percentages of state and local supervisors indicating areas of specialization shown prior to assuming supervisory duties.

Area of Specialization	*State Supervisors (N = 40)*	*Local Supervisors (N = 101)*
Speech and hearing	70	71
General speech	8	6
General education	5	10
Special education	13	9
Teacher of deaf	2	1
Other	2	3

The professional experience of these supervisors (including positions in all situations such as summer clinics, work as a speech and hearing clinician, and work in a supervisory capacity) totals on the average 15.6 years. Table 3-2 presents more detailed information about the total professional experience of the 141 respondents, and Figure 3-4 provides information about state and local supervisors separately. These supervisors have had an average of 4.8 years of experience as public school clinicians and 4.7 years as speech and hearing supervisors. Before they became supervisors, 71% had specialized in speech and hearing disorders, 6% in general speech, 10% in special education, and 9% in general education. Table 3-3 indicates the areas of specialization of the state and local supervisors.

Professional Affiliation. With regard to membership in professional associations, there are essentially no differences between state and local supervisors. Seventy-one per cent belong to both state and national speech and hearing associations, 11% belong to the state organization only, and 13% belong to neither. Since in the case of 71% of the supervisors the area of specialization

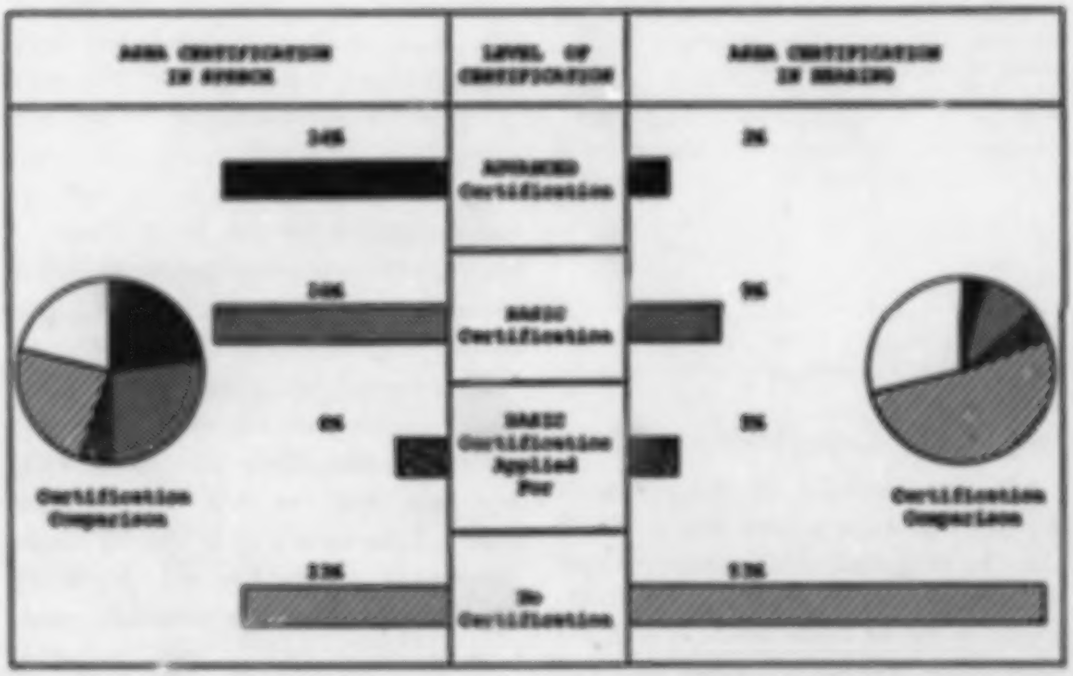

FIGURE 3-5. ASHA certification held by program supervisors in nationwide sample (N = 141).

is reported to have been speech and hearing disorders, it seems safe to assume that it is supervisors with this background who hold membership in local and national speech and hearing associations. Similarly it can be assumed that the 13% holding no affiliation with local or national speech and hearing associations are personnel whose specialization was in areas other than speech and hearing.

As shown in Figure 3-5, 24% of the supervisors have Advanced Certification in Speech in the American Speech and Hearing Association and 26% have Basic Certification; 3% have Advanced Certification in Hearing, 9% Basic. Another 11% indicate that they have applied for Basic Certification in either Speech or Hearing.

TABLE 3-4. Duration of speech correction and hearing conservation programs in school systems represented by supervisors. Values represent percentages of 40 state (S) and 101 local (L) supervisors employed in programs of durations indicated.

Years of Duration	*Speech Correction Program*		*Hearing Conservation Program*	
	S	*L*	*S*	*L*
1	0	2	0	8
2-5	5	8	15	4
6-9	25	15	20	12
10 or more	63	73	60	65

Professional Responsibilities

In a consideration of the duties of the supervisors, it is well first to know that the programs they represent have in the majority of cases been in existence for ten or more years. Table 3-4 shows how long speech correction and hearing conservation programs supervised by the 40 state and 101 local supervisors have existed. Only 5% of the speech correction and 15% of the hearing conservation programs directed by state supervisors are five years old or less; only 10% of the speech correction and 12% of the hearing conservation programs directed by local supervisors are five years old or less.

TABLE 3-5. Numbers of clinicians supervised by state and local supervisors. Values represent percentages of supervisors reporting numbers shown.

Number of Clinicians	*State Supervisors (N = 40)*	*Local Supervisors (N = 101)*
1-9	15	57
10-20	15	24
21-39	15	10
40-99	15	6
100-200	20	3
201-640	20	0

Number of Clinicians Supervised. The mean number of speech and hearing clinicians supervised by the total group of 141 supervisors is 51. Averages range from 20 clinicians per supervisor in the Southeast region to 72 clinicians per supervisor on the West Coast. A breakdown indicating numbers of clinicians supervised by state and local personnel is presented in Table 3-5.

Twenty-six per cent of the supervisors report that the clinicians under their direction cover all grades. Fifty per cent indicate that the clinicians cover all grades as well as 'special' classes (ungraded classes for the physically handicapped, mentally retarded, etc.)

Professional Duties. The duties of supervisors of speech and hearing programs are numerous and diverse. Table

TABLE 3-6. Percentages of state and local supervisors indicating the relative importance of each of 12 supervisory duties. S = supervisors of state programs (N = 40). L= supervisors of local programs (N = 101).

Duty	*Importance of Duty*					
	Very Important		*Moderately Important*		*Of Slight or No Importance*	
	S	*L*	*S*	*L*	*S*	*L*
Assist in diagnosis	35	50	28	28	35	22
Prepare budget	55	68	18	14	25	18
Compile, report enrollment figures	58	60	28	22	13	18
Devise report forms	70	54	23	38	5	8
Interview applicants for positions	28	86	18	9	53	5
Conduct in-service training	65	83	15	14	18	3
Observe clinicians	58	67	23	26	18	7
Plan for needed equipment	43	66	28	30	28	4
Prepare, revise speech handbook	55	50	23	35	20	15
Schedule screening and therapy	18	43	20	33	60	24
Take care of referrals	25	41	20	29	53	30
Talk to outside groups	80	66	18	26	0	8

3-6 shows the opinions of state and local supervisors relative to the importance of their various duties. Rather marked differences in expressed opinions are found between respondents in the several geographic regions, probably because of the long use of certain established procedures within each region.

The highest agreements among state supervisors in their designations of 'very important' responsibilities occur with respect to (a) talking to outside groups, (b) devising report forms, (c) conducting in-service training, (d) observing clinicians, and (e) compiling and reporting enrollment figures. Local supervisors agree best in designating as 'very important' (a) interviewing of applicants, (b) conducting in-service training, (c) preparing budgets, (d) observing clinicians, (e) talking to outside groups, and (f) planning for needed equipment.

Although 90% of the total of 141 supervisors responding indicate that they consider the observation of clinicians to be one of their very or moderately important duties, 33% of school clinicians report that their immediate supervisor never observes therapy. Another 51% indicate that their supervisor observes only occasionally (one to three visits a year). This apparent discrepancy between doctrine and practice may be explained by the fact that many of the 'supervisors' the clinicians have in mind are superintendents, principals, and directors of special education. These supervisors probably do not observe therapy as a rule, but they are not included among the supervisors of speech and hearing programs who were asked to complete the questionnaire. Another possible explanation is that although speech and hearing program supervisors feel that observation is important, they may themselves have insufficient time to visit frequently and lack qualified staff assistants who can assume the responsibility.

Another activity of supervisors which is not reported in Table 3-6 is talking to high school students and others in order to acquaint them with the speech and hearing profession with the intent of recruiting prospective clinicians. Forty per cent of the supervisors report that they talk to students and make supplementary contacts with this purpose in mind. Another 21% report more extensive contacts for this purpose. Thirty-five per cent indicate that they have no contact with high school students relative to recruitment. (Chapter IX contains more complete information about the supervisor's role in and opinions about recruitment.)

TABLE 3-7. Percentages of supervisors requiring the routine submission of each of seven types of reports.

Type of Report	*State Supervisors (N = 40)*	*Local Supervisors (N = 101)*
Census reports	73	50
Classification of disorders reports	58	62
Equipment inventories	30	60
Financial reports	50	26
Program description reports	80	54
Individual case reports	33	71
Progress reports	35	77

Reports Required. In order to accomplish their supervision of speech and hearing programs, supervisors require the clinicians under their direction to submit certain reports. Table 3-7 indicates the types of reports submitted to state and local supervisors. It is apparent that state supervisors are especially concerned with program descriptions and census and financial reports whereas local supervisors are more concerned with individual case records and progress reports, reports of disorder classifications, and equipment inventories. Table 3-8 shows the total number of different types of reports required by the supervisors.

TABLE 3-8. Total number of different types of reports submitted routinely by clinicians to their supervisors. Values represent percentages of state and local supervisors indicating number of reports shown.

Total Number of Reports Submitted	*State Supervisors (N = 40)*	*Local Supervisors (N = 101)*
1	5	5
2	13	10
3	33	20
4	23	23
5	13	28
6	10	10
7	3	4

Research Conducted by Supervisors

Some supervisors in the discharge of their official duties have been sufficiently concerned with the inadequacy of certain aspects of their programs to undertake research related to these aspects. Table 3-9 shows the percentages of state and local supervisors who report having engaged in research relative to four topics.

TABLE 3-9. Percentages of state and local supervisors reporting individual research done on topics shown.

Topic	*State Supervisors (N = 40)*	*Local Supervisors (N = 101)*
Incidence studies	48	45
Comparison or development of therapeutic techniques	35	32
Development of testing techniques or devices	20	31
Comparison of effectiveness of different scheduling methods	28	27

TABLE 3-10. Quality of relationships with other professional personnel as reported by 40 state supervisors (S) and 101 local supervisors (L). Values represent percentages of supervisors.

Professional Persons	*Quality of Relationship*							
	Excellent		*Satisfactory*		*Other*		*No Contact*	
	S	*L*	*S*	*L*	*S*	*L*	*S*	*L*
Classroom teachers	60	66	20	30	3	1	10	2
Principals	58	83	28	16	3	0	5	0
Superintendents	78	78	15	18	0	0	0	3
School psychologists, guidance counselors	48	83	40	14	3	0	3	2
School nurses	63	66	18	29	3	0	10	4
School physicians	25	33	20	32	5	3	43	32
Special education directors	83	74	8	10	0	1	3	14

One-half of the supervisors state that the research which they were doing or had done was not a requirement for a course or an advanced degree. Forty per cent of state and 32% of local supervisors indicate that it was done as a part of their regularly scheduled work. Approximately half of each group state that is was not done in cooperation with academically sponsored research. One out of five state supervisors and one out of three local supervisors indicate that it was conducted as a voluntary project on their own time.

Fully one-third of the supervisors indicate that they are not doing and have not done any sort of research. Since the largest number of supervisors reported doing research on incidence studies and another high percentage reported doing the research as a part of their regularly scheduled work or as a voluntary project on their own time, the question arises as to how many of these projects involved simply the compilation of figures as a part of their regular job.

Professional Relationships

Like clinicians, supervisors have professional contacts with many other individuals concerned with the management of speech- and hearing-handicapped children. Supervisors were asked to evaluate the quality of these professional relationships. Their responses are summarized in Table 3-10. For obvious reasons state supervisors have more limited contacts with classroom teachers, school nurses, and school physicians than do local supervisors. It is somewhat surprising that a higher percentage of state supervisors do not indicate lack of contact with certain types of personnel at the level of the individual school. The percentage of local supervisors reporting no contact with school physicians is surprisingly high. In general the relationships appear to be excellent. A comparison with Table 2-6, Chapter II, which shows clinicians' evaluations of their professional relationships, indicates that both clinicians and their supervisors are well satisfied with their relationships with classroom teachers, nurses, and school administrative personnel.

Discussion

Examination of the data reported above suggests that practices followed nationally in the supervision of public school speech and hearing programs are highly varied. There is wide variation of opinion concerning the importance of various duties of supervisors. Investigation might well be made of the possible values which would accrue from a nationwide adoption of more uniform policies regarding program supervision, although the meeting of local needs must be kept in mind. Advantages might also result from including in training programs greater stress on procedures in supervision and administration.

In the formulation of Questionnaire II for Speech and Hearing Supervisory Personnel no distinction was made between supervisors and administrators. In future investigations such a distinction should certainly be made and useful information gathered about the responsibilities of both.

It is apparent that many decisions concerning procedures followed in doing remedial work and in administering public school programs are not based upon objective information. Since there is so little conclusive evidence relative to many aspects of public school speech and hearing programs, public school administrators and supervisors and personnel in the training and research institutions would do well to collaborate in designing research projects calculated to answer urgent questions relating to policy and method.

Further investigation of professional cooperation of speech and hearing personnel with school nurses, psychologists, guidance counselors, social workers, and physicians is warranted. Public school speech and hearing clinicians and supervisors may not be utilizing to the fullest extent the team approach in meeting the needs of the speech- and hearing-handicapped child.

The data concerning supervision which were gathered in the National Survey having now been reviewed, it seems useful to present brief statements summarizing the duties typically performed by state and local supervisors of speech and hearing programs.

The State Supervisor. After developing a philosophy which represents the thinking of the best qualified people in the state concerning speech correction services in school districts, the prime responsibilities of a supervisor in a state office are legal ones. These include such matters as the establishing of standards to guide programs applying for state aid, determining qualifications of clinicians, and approving applications for state recognition.

In addition, a state supervisor advises in the making or amending of laws and preparation of budgets; stimulates through writing and talking the interest of districts in speech programs; designs, records, collects, and presents information which gives a picture of the program; assists in the in-service training of clinicians; visits programs as part of the evaluation process for state recognition; acts as liaison person between colleges and schools in matters concerning student teachers and research projects; aids professional organizations in the preparation of programs; and promotes recruitment of clinicians.

A state director's responsibilities, then, are two-fold: first, the legal tasks which make possible the expenditure of state funds for speech correction, and second, the more purely professional obligations involved in the creation, the establishment, and the maintenance of ever-improving speech correction services.

The Local Supervisor. The local supervisor has the responsibility for developing a working philosophy which incorporates the speech correction program into the district's total educational plan. Among his immediate duties are assisting in the employment of clinicians, assigning clinicians to schools, providing physical equipment and basic instructional materials and books, and orienting clinicians in matters pertaining to school policy, lines of authority, and customs.

The local supervisor also gives guidance in the making of surveys and schedules, develops record forms which aid in the efficient operation of the programs, prepares reports required by the state, seeks opportunities for the integration of the speech program into the general curriculum, gives help in baffling cases, and provides opportunities for the staff's professional growth. In matters involving the development and interpretation of the service the supervisor has a major responsibility. It is he who reports to the superintendent and the board, meets with principals and other faculty personnel, makes contact with outside agencies and organizations, and, in brief, represents speech correction to the public. He is a key person in developing a clinician recruitment program.

To summarize, the development of the speech services within the schools, the establishment of lines of communication with concerned offices and agencies, and the interpretation of the program to professional and lay persons are the responsibilities of the local supervisor.

Summary

The individuals who supervise public school clinicians are called supervisors, consultants, coordinators, directors, and heads of special education or of speech and hearing. The majority are over 40 years of age, with an almost equal distribution of men and women in these positions. The salaries vary from $6000 to over $10,000. Amount of salary correlates highly with age and level of training.

With regard to training, 75% of supervisors have work beyond the master's degree, and 12% have the doctorate. The average supervisor has compiled professional experience totaling 15.6 years, with an average of almost five years of experience as a public school clinician. Before they became supervisors, 71% specialized in speech and hearing disorders. Seventy-one per cent belong to state and national professional speech and hearing associations. Twenty-seven per cent have Advanced Certification in either Speech or Hearing awarded by the American Speech and Hearing Association; 35% have Basic Certification in Speech or Hearing.

Eighty-eight per cent of the speech therapy and 75% of the hearing conservation programs represented by these supervisors have been in existence over five years, and 70% and 64% of them, respectively, have existed for more than

10 years. Supervisors direct the work of 51 clinicians on the average.

Supervisors of state programs indicate that their most important duties include talking to outside groups, devising report forms, conducting in-service training, observing clinicians, and compiling statistics pertaining to enrollment. Supervisors of county and city programs agree that their most important duties include interviewing job applicants, conducting in-service training, preparing budgets, observing clinicians, talking to outside groups, and planning for needed equipment. An important vehicle by means of which supervisors oversee the work of clinicians is the report. Reports range from statistical reports concerning enrollments, budgets, and equipment to reports of the problems and progress of individual cases.

Supervisors believe that their professional relationships with classroom teachers and school administrators are excellent. Contacts with medical personnel are limited.

IV. Program Organization and Management

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A complete understanding of the work of the speech and hearing clinician and his supervisor rests upon a visualization of the public school environment within which they function and the organizational structure which they help to frame and of which they are a part. The clinician's goal is to provide comprehensive service calculated to meet the needs of speech- and hearing-impaired children. He endeavors to achieve his goal by devising, in cooperation with and under the direction of state and local supervisors, a continuing program that is technically sound, appropriate to the geography and the size of the area he serves, in accordance with school laws as well as state, county, and local administrative practices, and in accord with the expressed needs of local school personnel. He strives to meet all standards, satisfy all requests; in so doing he inevitably encounters problems and suffers frustration, and sometimes he even experiences failure—but function he must within the prescribed organizational structure.

Work Group III set about to explore the general area of program organization and management, focusing its attention upon broad aspects of overall speech and hearing program organization, details of local programming (scheduling), reporting and record keeping practices, and program financing. Information was gathered from school clinicians and state and local supervisors through the vehicle of questionnaires supplemented by some follow-up correspondence.

Overall Program Organization

The clinicians who provided information about program organization and management represent school systems covering a wide range of sizes. Table 4-1 shows the percentages of clinicians representing systems of varying size. Fully one-half of the clinicians work in systems consisting of 20 or fewer elementary, junior high, and senior high schools; about one-third work in

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TABLE 4-1. Sizes of school systems represented by 705 clinicians responding. Values represent percentages of clinicians reporting that they work in systems consisting of indicated number of elementary, junior high, and senior high schools.

Number of Schools in System	*% of Clinicians*
1-10	31
11-20	20
21-30	9
31-40	6
41-50	3
51-60	2
61-70	2
71-80	1
81-90	1
Over 90	14

systems consisting of 10 or fewer schools. One-fifth work in systems consisting of more than 50 schools.

Most of the clinicians represent school systems with well-established remedial speech and hearing conservation programs, as shown in Table 4-2.

In half of the systems the speech correction program is at least 10 years old, while in over 40% of the systems the hearing conservation program is that old. Breakdowns by geographical area indicate that there are more long-established speech correction programs in the Midwest and on the West Coast than in the other regions; 63% of the clinicians in the Midwest represent programs in existence for 10 years or long-

TABLE 4-2. Duration of speech correction and hearing conservation programs in school systems represented. Values represent percentages of 705 clinicians working in programs of durations indicated.

Years of Duration	*Speech Correction Program*	*Hearing Conservation Program*
1	4	4
2-5	21	15
6-9	22	15
10 or more	51	41

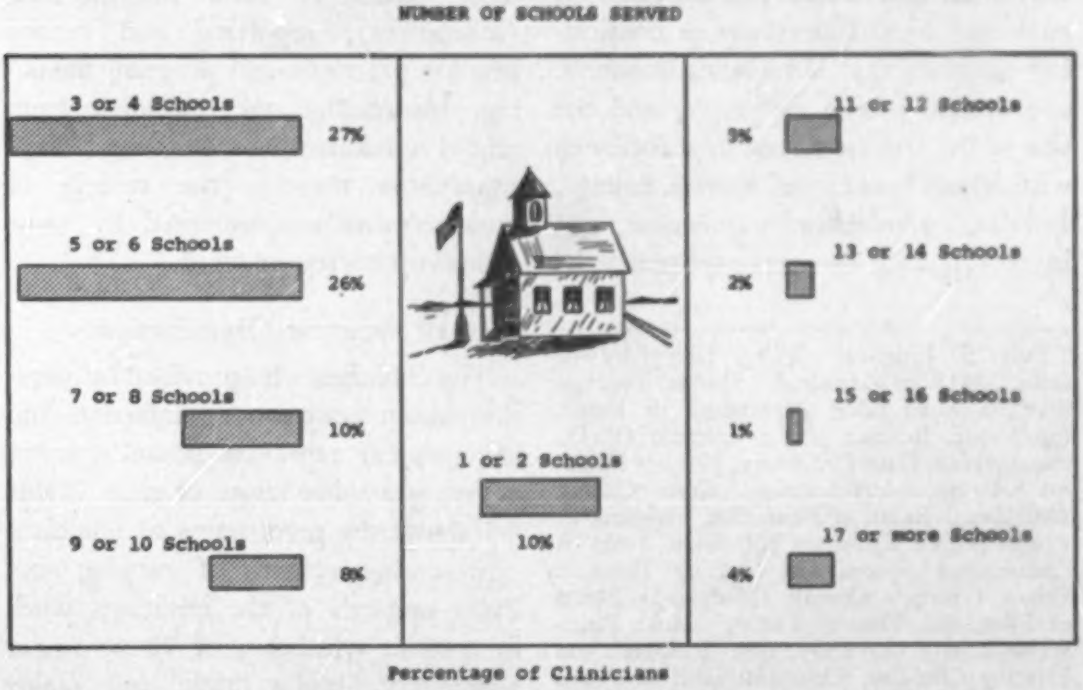

FIGURE 4-1. Number of schools served by clinicians in nationwide sample (N = 705).

er, as do 56% of the clinicians on the West Coast. Long-established hearing conservation programs are more numerous on the West Coast (53% of clinicians representing programs 10 years old or older) and in the Midwest (47%).

Schools Served. Specific information about the total number of clinicians in these programs was not obtained, but it is known that there is considerable variety in the number of schools individual clinicians serve. Fifty-three per cent of the 705 clinicians replying serve from three to six schools. Ten per cent work in only one or two schools, 18% serve from seven to 10, 8% serve from 11 to 16, and 4% serve 17 or more. (see Figure 4-1).

Clinicians were asked to name the most important determinant of the number of clinicians in their school system. Fifty-three per cent indicate that budget constitutes the limiting factor. Another 28% report that the number of clinicians hired is predicated upon the number of children needing help. Fourteen per cent state that the supply of available clinicians determines how many are hired. Two per cent say that the limit on number of clinicians is prescribed by administrative fiat.

Grades Served. Speech and hearing personnel serve the various grades as follows: about one-fourth work at all levels, somewhat more than one-third work in elementary schools only (kindergarten through sixth grade), and about one-third in kindergarten through ninth grade. Only about 2% work strictly at the high school level. The responses of a total of 1462 clinicians indicate that about three-fourths of them work primarily with children in three grades: kindergarten, first, and second. About 18% more report their cases to be concentrated in the third and fourth grades, with only about 6% reporting their cases to be concentrated in the remaining grades of elementary, junior high, and senior high school. These data are summarized in Figure 4-2.

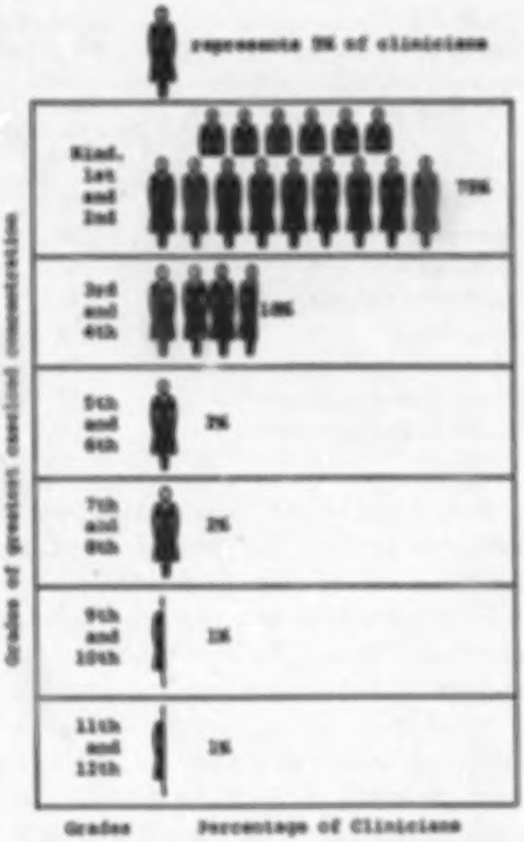

FIGURE 4-2. School grades in which clinicians in nationwide sample report the greatest concentration of cases (N = 757).

Thirty-one per cent of the clinicians report that they feel most effective at the primary level, 48% at the elementary level, and 5% at the secondary level. In other words, clinicians usually report concentration of their efforts where they consider themselves to be most effective.

TABLE 4-3. Percentages of 141 state and local supervisors indicating provision by their school system of speech correction services for preschool and parochial school children.

Region	*Both Preschool & Parochial*	*Preschool Only*	*Parochial Only*	*Neither Preschool nor Parochial*
Northeast	24	15	12	48
Midwest	25	30	20	25
Southeast	17	22	17	44
Southwest-Mountain-Hawaii	35	35	0	30
West Coast	13	74	0	13
Total: all supervisors	23	33	11	32
Total: state supervisors	32	35	8	25
Total: local supervisors	20	33	13	34

State and local supervisors were asked to indicate the provisions made by their school systems for supplying help to preschool and parochial school children. Table 4-3 summarizes the responses of 141 supervisors and presents a breakdown by geographical region. Although about one-third of the systems sampled nationwide provide no such service, 56% of the systems provide speech correction for preschool children and 44% extend such service to children in parochial schools.

Details of Programming

Procedures that are used in case finding are fully described in Chapter V and will not be reviewed here. In this section practices will be reviewed which pertain to the scheduling of therapy for children found to need direct remedial work.

Size and Composition of Caseload. The responses received from a total of 1462 clinicians nationwide working with a total of 186,962 children with speech and hearing problems indicate a mean current caseload of approximately 130 children. The average number of children seen at least weekly is 111; the average number of children worked with in the course of a year is 152.

Table 4-4 provides a regional breakdown of the responses of two groups of clinicians to a question about the size of their current caseload. The heaviest caseloads are reported in the Northeast and on the West Coast, the lightest in the Southwest-Mountain-Hawaii region and the Midwest. Regional differences are primarily the result of variations in the number of articulation cases included in the caseload.

TABLE 4-4. Mean total caseload (including children seen both individually and in groups) as reported by two representative groups of clinicians.

Region	*Group I* *N* = 705	*Group II* *N* = 757
Northeast	166.91	186.10
Midwest	103.18	108.12
Southeast	121.98	118.63
Southwest-Mountain-Hawaii	89.13	104.56
West Coast	136.00	118.00
Total	125.78	132.07

Clinicians were asked to specify what factors serve to limit their caseload. Only one-fourth report that their caseloads are limited by state law, while

TABLE 4-5. Percentages of clinicians indicating that they must secure approval from persons indicated before a child can be admitted to a therapy program. Total = 705 clinicians.

Region	*Person Granting Approval*					
	Principal	*Supervisor*	*Both Principal & Supervisor*	*Parent*	*Physician*	*Both Parent & Physician*
Northeast	14	7	9	27	4	7
Midwest	13	3	4	32	2	7
Southeast	17	8	9	21	3	17
Southwest-Mountain-Hawaii	29	3	10	60	0	6
West Coast	26	7	3	31	1	14
Total	17	5	7	32	2	9

another 5% state that local regulations set caseload limits. Twenty-three per cent state that their caseload limit is established by the number of children who present speech problems. Such caseloads are presumably potentially unlimited. But 45% of the 705 clinicians state that the size of their caseload is left to their own discretion. Nevertheless approximately one-half of the clinicians express concern regarding the size of their caseloads, saying that the size does not approach the ideal they visualize. Perhaps other pressures are involved which the survey failed to reveal since only 35% expressed no dissatisfaction with their caseload size although 45% declare the decision as to size is theirs to make.

Inclusion of specific children in the therapy program is left largely to the discretion of the clinician. Although the clinician usually has someone to whom he is responsible (see Chapter III) and operates within a framework of established policy (for example, whether or not kindergarten children or mentally retarded children are to be served), he usually does not need specific administrative approval for the admission of a child into the therapy program. As shown in Table 4-5, 29% of clinicians report that either the school principal or the clinician's supervisor or both must give approval. Approximately two out of five clinicians report that parents must approve admission of a child to therapy. However, this figure must be interpreted cautiously; apparently some clinicians defined 'securing permission' to include simply informing the parents of a child's inclusion in therapy. Clinicians in the Southwest-Mountain-Hawaii region report the necessity for parental approval

TABLE 4-6. Mean numbers of children presenting various types of disorders composing average total caseload reported by two representative groups of clinicians.

Type of Disorder	*Group I N = 705*	*Group II N = 757*
Articulation	102.63	108.62
Cerebral palsy	1.24	1.21
Cleft palate	2.18	1.95
Delayed speech	5.47	6.09
Hard of hearing	3.22	3.55
Stuttering	8.05	8.81
Voice problems	2.86	3.36
Aphasia	.26	.12
Mentally retarded	.25	.06
Bilingual	.66	.45

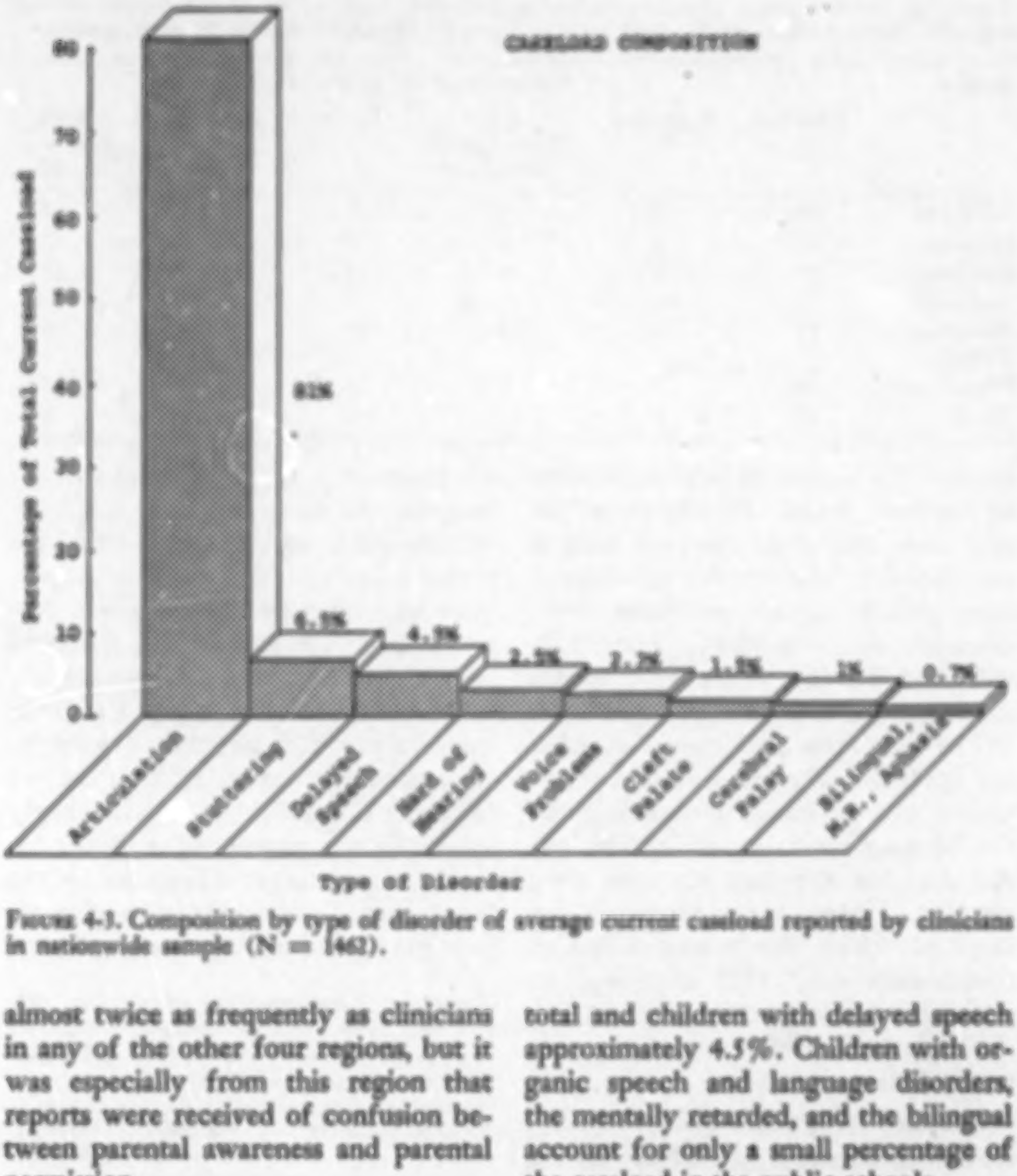

FIGURE 4-3. Composition by type of disorder of average current caseload reported by clinicians in nationwide sample (N = 1462).

almost twice as frequently as clinicians in any of the other four regions, but it was especially from this region that reports were received of confusion between parental awareness and parental permission.

In Table 4-6 and Figure 4-3 is presented a breakdown by type of disorder of the average current caseload reported by two representative groups of clinicians. Eighty-one per cent of the caseload is comprised of children with articulation problems. The second largest group, children who stutter, comprise approximately 6.5% of the total and children with delayed speech approximately 4.5%. Children with organic speech and language disorders, the mentally retarded, and the bilingual account for only a small percentage of the caseload in the public schools.

Structure of Therapy Sessions. Approximately nine-tenths of the children who receive speech therapy at least weekly are receiving it in group sessions. National averages indicate that clinicians each week see about 10 children individually and 101 children in groups of four or five. About three-fourths of the clinicians believe that

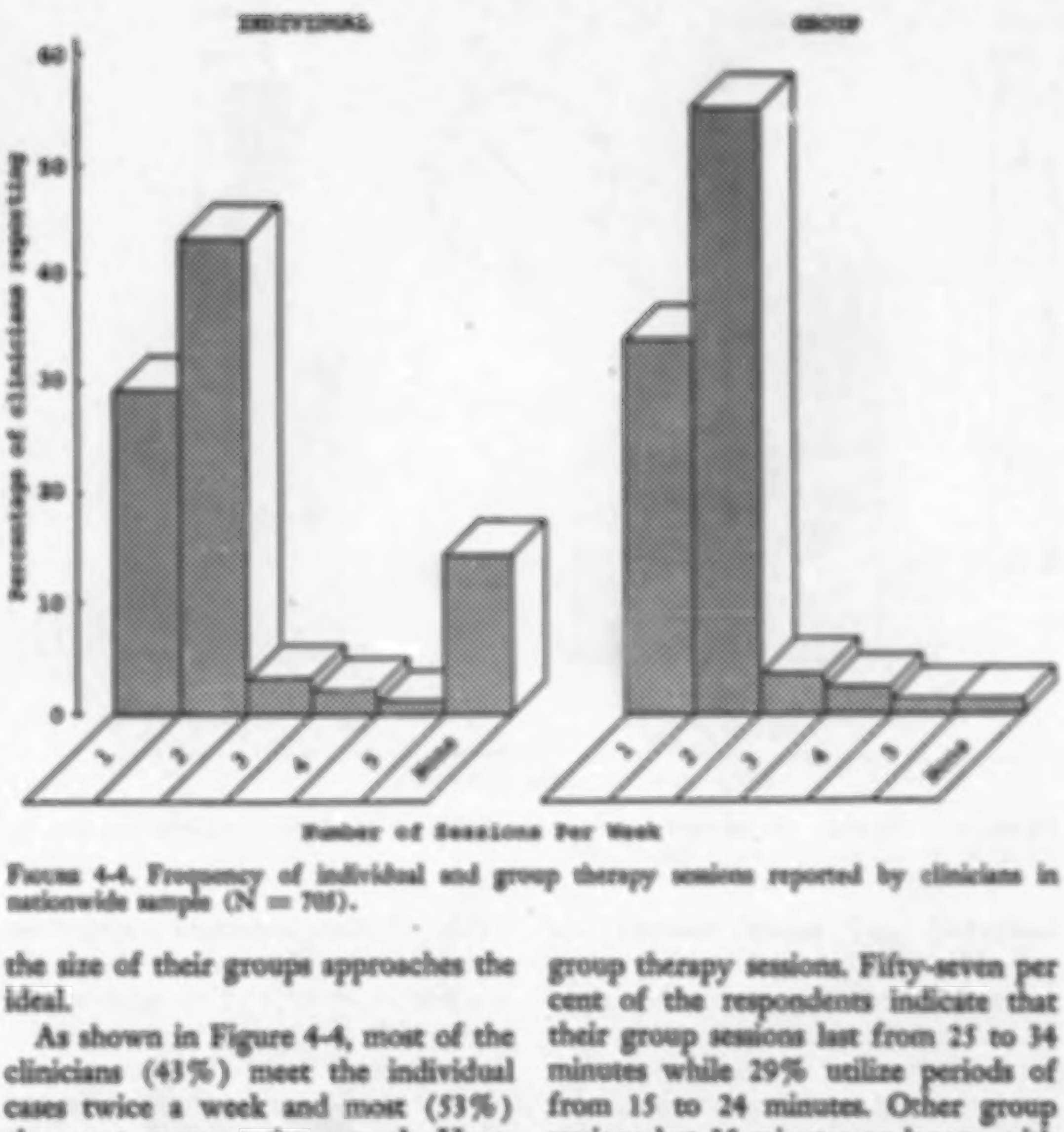

FIGURE 4-4. Frequency of individual and group therapy sessions reported by clinicians in nationwide sample (N = 705).

the size of their groups approaches the ideal.

As shown in Figure 4-4, most of the clinicians (43%) meet the individual cases twice a week and most (53%) also meet groups twice a week. However, a large number meet individuals (29%) and groups (33%) only once a week. Only 6% meet individuals and groups three, four, or five times a week. Fourteen per cent state that they conduct no individual therapy; only 1% conduct no group therapy. Approximately one out of two clinicians feels that the number of therapy meetings scheduled weekly is *not* satisfactory.

Figure 4-5 summarizes information about the duration of individual and group therapy sessions. Fifty-seven per cent of the respondents indicate that their group sessions last from 25 to 34 minutes while 29% utilize periods of from 15 to 24 minutes. Other group sessions last 35 minutes or longer with no group sessions continuing as long as 55 minutes. As might be expected, the periods of individual therapy are somewhat shorter, with 10% reporting sessions which are no longer than 14 minutes. Forty per cent devote 15 to 24 minutes to individual sessions, 36% schedule a 25- to 34-minute session, and about 2% report individual lessons which fall within the 35- to 54-minute bracket. Three out of four clinicians responding feel that the length of their

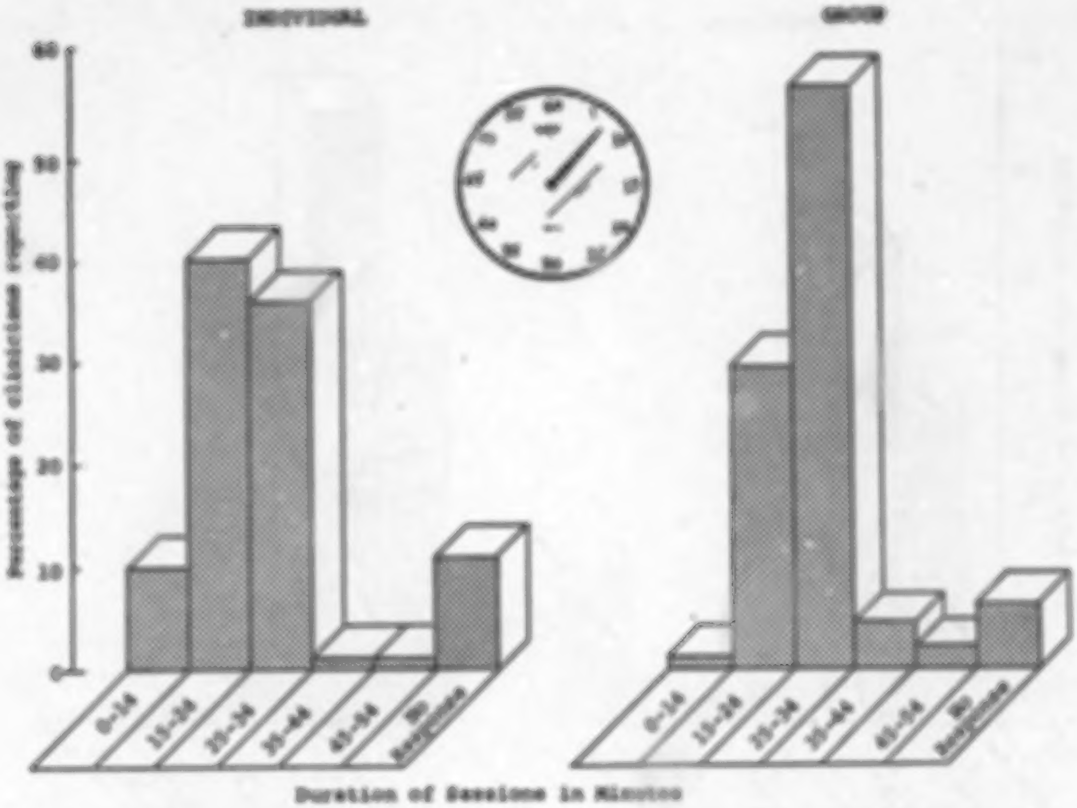

FIGURE 4-5. Duration (in minutes) of individual and group therapy sessions reported by clinicians in nationwide sample (N = 705).

individual and group sessions approaches the ideal.

As the public school clinician plans his therapy schedule, his decisions concerning times and durations of sessions are influenced by several persons with whom he must cooperate, as shown in Table 4-7. Most important among these persons is the classroom teacher, who is reported by 83% of the clinicians as having either a great or a moderate influence upon scheduling. It is important to note that clinicians report that the teacher does not affect *who* is scheduled but *when* he is scheduled. The special teacher exerts an influence because therapy sessions must be fitted around art, music, and physical education programs. The principal's opinion is similarly to be considered if speech therapy is to be coordinated with the overall school program.

Clinicians and program supervisors were asked about their use and their opinion of the effectiveness of the

TABLE 4-7. Percentages of 705 clinicians reporting relative influence of various school personnel on the scheduling of speech therapy sessions.

Person	*Degree of Influence*		
	Great	*Moderate*	*Little or None*
Classroom teacher	37	46	16
Special teacher	13	25	61
Principal	7	26	66
Supervisor	6	12	81

TABLE 4-8. Comparisons of relative effectiveness of 'block' and 'regular' systems of scheduling made by clinicians and supervisors. Values represent percentages of clinicians and supervisors evaluating the systems as shown.

Evaluation	*Personnel*		
	Clinicians (*N* = 700)	*Local Supervisors* (*N* = 302)	*State Supervisors* (*N* = 48)
Block is far superior	3	6	8
Block is a little better	1	2	0
About the same	2	6	10
Regular is a little better	2	6	8
Regular is far superior	4	5	12
Have not used or no response	88	75	62

'block' system of scheduling as contrasted to the 'regular' system, neither term being defined in the questionnaires. Their responses reveal that 81% of clinicians, 70% of local supervisors, and 33% of state supervisors have never used it. Table 4-8 reports the evaluation of the block system by those clinicians and supervisors who have used it. Opinion appears to favor the regular system of scheduling.

Since there appeared to be some confusion among the respondents in answering questions about the block system, a follow-up study was conducted. One hundred questionnaires were sent to subcommittee members of Work Group III with the request that they distribute them to public school clinicians; 75 were returned completed. Of the 75 respondents, 10 did not know the meaning of the term 'block system.' When asked to explain how the block system operates, the other 65 described 26 different variations of procedure. Most respondents described the block as a concentrated or intensive program varying in length from two weeks to a full semester. Most stated that the system involves therapy sessions four or five times per week, but some described it as involving a period of therapy in one group of schools with two sessions per week followed by a shift to another group of schools. Twenty-seven of the 75 clinicians were currently using it or had used it; of these, 19 considered it (with all its variations) to be superior to the regular method.

The follow-up study was based upon a comparatively small sample, but it serves to raise a question regarding the validity of the results of the more extensive questionnaire as they pertain to the block and regular systems of scheduling. It points out the confusion which exists with regard to terminology in the area of scheduling.

Record Keeping and Reporting

A systematic recording by the clinician of certain basic information about each child receiving remedial speech and hearing services facilitates the development of a meaningful sequence of services for the child no matter how great the span of time involved or the number of persons involved in the provision of the services. Such recording also constitutes the basis for reports upon which is built administrative justification for the program. The reporting activities of the clinician are designed also to bring about optimal conditions for the child's growth in speech by effecting changes in the attitudes which surround the child—attitudes of teachers and parents and administrators. The keeping of records and the making of reports, then, are not simply necessary evils which absorb precious time better spent on other activities. They are more appropriately viewed as valuable vehicles for increasing the efficiency of help rendered to pupils and making possible program development and justification.

Work Group III concerned itself with the kinds of records clinicians maintain on individual children, the kinds of reports they prepare, and the identity of the recipients of these reports.

TABLE 4-9. Percentages of 705 clinicians stating that they keep records indicated for each of their students.

Record	%
Case history	73
Record of phonetic improvement	71
Reports of conferences	60
Daily log	33
Weekly or monthly progress reports	41
Semester or annual reports	21

Records Kept on Individuals. Table 4-9 shows the percentages of clinicians reporting that they maintain given records 'for each student' in their therapy program. The fact that the questions about maintenance of records were worded to specify *'for each student'* would compel a clinician to reply in the negative if his practice in keeping given records did not apply to 100% of his cases, even though he might keep such records on a majority of the caseload.

It can be seen that only one-third of the clinicians state that they keep an individual daily log for each child. But a surprisingly large 73% state that they keep a case history on each child. Since the average current caseload is about 130 children and since the average amount of time devoted weekly to the writing of reports is only 2.12 hours (Chapter II, Table 2-3), the accomplishment of such a feat seems beyond the realm of possibility. It is likely that there is lack of agreement as to the meaning of the term 'case history.'

Regional variations in record-keeping practices are small. Cross-tabulations indicate that clinicians who do not hold a college degree tend to do less record-keeping than average whereas those with the highest level of training more frequently make it a practice to maintain records.

Supplementary pupil records such as the results of hearing and vision tests, health records, intelligence and achievement tests, and cumulative records are reportedly readily available to most clinicians in all the geographic regions. Table 5-7 (Chapter V) presents details concerning the availability of these records.

TABLE 4-10. Percentages of 705 clinicians submitting reports of the types indicated.

Type of Report	%
Results of speech testing	67
Results of hearing testing	39
Schedules of schools and classes	81
Therapy progress reports	63
Final reports	89

Reports Prepared. Table 4-10 presents the percentages of clinicians stating that they submit reports of the type indicated. Unfortunately clinicians were

TABLE 4-11. Percentages of 705 clinicians submitting reports to individuals indicated.

Recipient	%
Speech and hearing supervisor	35
Classroom teacher	56
Superintendent	36
Principal	64
Special education director	33
State department of education	43
Parents	49

asked about only five types of reports. It is believed that most clinicians regularly prepare a greater variety of reports than those listed. Terms used were not defined, so interpretation of the results is difficult.

The great majority of clinicians prepare final reports. It is not clear whether clinicians interpreted 'final reports' to include the annual or semester reports alluded to in Table 4-9, which only 21% of clinicians prepare *for each student*. It is probable that most clinicians submit year-end reports of their professional work; many probably also prepare final individual case reports when children leave the therapy program; a smaller number would be expected to prepare individual reports on every child at the end of each year.

The fact that only 39% of clinicians submit reports concerning the results of hearing testing is a reflection of the fact that only a minority of clinicians carry responsibility for audiological screening and diagnostic testing in the public schools. (Further information pertinent to responsibility for hearing testing is presented in Chapters II and V.)

The frequency with which these and other reports are submitted was not determined.

Recipients of Reports. Table 4-11 indicates that the recipients of clinicians' reports are co-workers within the school, supervisory personnel at various levels, and parents. It is apparent that the individuals who play the most vital role in program development, program expansion, and the maintenance of high professional standards—the supervisors of speech and hearing programs, directors of special education, and superintendents—are quite poorly informed regarding the programs. Material presented in Chapter III (see especially Table 3-7) similarly indicated that many supervisors do not routinely receive information essential to enlightened program supervision and development.

About two-thirds of the clinicians state that during their training they had to prepare various kinds of reports (see Chapter VIII, Table 8-5, for details). One may ask, then, why the practice of preparing and submitting reports 'on the job' is not more general and meaningful. One may conjecture that the exposure of the clinician-in-training to reporting procedures is not extensive enough or that in connection with the exposure inadequate emphasis is placed upon the purposes and the importance of reporting; the attitude may be built that reports are a necessary drudgery during training from which the clinician will escape as soon as he is, erroneously speaking, 'on his own.' It is possible, too, that program supervisors and other administrative personnel have not appreciated or have failed to convey to clinicians in their systems the value of written communication in program development. The limitation of time must not be overlooked. The press of other duties may force clinicians and

TABLE 4-12. State reimbursement of local programs and type of reports required upon which reimbursement is authorized. Values represent percentages of 141 state and local supervisors replying as indicated.

Region	*Is There State Reimbursement?*			*Basis for Authorization of Reimbursement*		
	Yes	*No*	*No Response*	*Detailed Quantitative Information*	*Limited Qualitative Information*	*Program Description Only*
Northeast	85	12	3	61	21	3
Midwest	93	5	2	61	27	5
Southeast	83	17	0	61	22	0
Southwest-Mountain-Hawaii	87	4	9	43	35	9
West Coast	100	0	0	70	26	4
Total	90	7	3	60	26	4

supervisors drastically to reduce the amount of record keeping and reporting even at a sacrifice of efficiency in program evaluation and development.

Program Financing

Data concerning the salary scales of public school clinicians and supervisors have been presented in Chapters II (see especially Table 2-1) and III (see especially Figure 3-1). This section will confine itself to other aspects of financial management of public school speech and hearing programs.

Supervisors were asked to indicate whether local speech and hearing programs within their states receive reimbursement from state departments of public instruction. In cases where there is state reimbursement, supervisors were asked to state what types of reports are required on the basis of which reimbursement is authorized. A breakdown of the responses by geographic region is presented in Table 4-12. It can be seen that state reimbursement is the rule in all regions, instances of lack of such reimbursement being most frequent in the Southeast.

Supervisors were also asked whether local school districts receive state reimbursement for time spent by speech and hearing clinicians on speech improvement work. The responses, summarized by geographic region in Table 4-13, indicate that such reimbursement is not

TABLE 4-13. Percentages of 141 state and local supervisors indicating that state reimbursement is granted local school districts for time spent by speech and hearing clinicians on speech improvement.

Region	*Amount of Reimbursement*			
	Complete	*Partial*	*None*	*No Response*
Northeast	9	24	64	3
Midwest	14	5	77	5
Southeast	17	17	61	6
Southwest-Mountain-Hawaii	9	35	43	13
West Coast	13	35	52	0
Total	12	21	62	5

TABLE 4-14. Allowance by school administrations to clinicians and supervisors of time and funds to attend state, regional, and national speech and hearing association meetings. Values represent percentages of respondents replying as indicated. 1 = time and funds; 2 = time only; 3 = neither time nor funds.

Region	*State*			*Regional*			*ASHA*		
	1	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
Clinicians (N = 705)									
Northeast	31	42	25	20	36	42	21	35	42
Midwest	39	40	21	23	38	38	31	34	35
Southeast	16	54	27	9	42	46	16	27	54
Southwest-Mountain-Hawaii	26	41	28	10	36	49	18	21	55
West Coast	54	28	18	29	23	47	17	13	69
Total	34	41	23	20	35	43	23	29	46
Supervisors (N = 141)									
Northeast	58	24	15	52	18	24	61	12	21
Midwest	57	36	5	34	34	30	57	34	7
Southeast	44	44	6	28	44	22	44	33	17
Southwest-Mountain-Hawaii	61	17	17	43	13	39	52	9	35
West Coast	70	26	4	30	43	26	39	30	30
Total	58	30	9	38	30	28	52	24	20

the rule although it is fairly frequent, especially in the Southwest-Mountain-Hawaii region and on the West Coast. (For a discussion of the role of the speech and hearing clinician in speech improvement programs, see Chapter VII.)

Information was not gathered about the extent of reimbursement, differential reimbursement for different types of services, procedures to be followed for securing initial approval of a reimbursable program, or the ultimate role to be played by state reimbursement in the realization of local goals in the area of special education.

Clinicians were asked to explain the extent of their budgetary responsibilities in the local speech and hearing programs. Patterns of response were highly similar in all sections of the country. Over half of the clinicians (56%) play no role in budget formulation, responsibility being carried by the program supervisor or some other administrator; about one fourth (27%) are consulted about the budget by the program supervisor or administrator; only 13% carry responsibility for composing the budget. The apparently predominant role of the program supervisor in budget preparation is attested to by the fact that 82% of local supervisors and 73% of state supervisors expressed the opinion that it is either very or moderately important for someone in a supervisory position to prepare budgets (see Chapter III, Table 3-6).

Clinicians were asked whether their school administration provides time or funds or both to facilitate their attending speech and hearing association meetings at various levels—state, regional, and national. Regional practices vary considerably, as shown in Table 4-14.

TABLE 4-15. Percentages of clinicians reporting provision for reimbursement to them for various expenses. Total N = 705.

Region	*Type of Expense*				
	On-Job Travel	*Professional Books*	*Professional Organization Fees*	*Convention Expenses*	*Professional Training*
Northeast	55	43	4	33	7
Midwest	78	42	4	44	8
Southeast	87	36	1	17	8
Southwest-Mountain-Hawaii	72	36	2	32	7
West Coast	89	30	3	51	7
Total	73	39	3	37	7

West Coast states more than the states of any other region encourage (through allowance of both time and funds) attendance by clinicians at state meetings, but West Coast states offer clinicians the least encouragement to attend ASHA conventions. States of the Midwest region present a picture of most comprehensive support of such professional activity at all levels by clinicians, followed by the states of the Northeast region.

As might have been expected, supervisors fare better than clinicians in all regions in receiving support for attendance at professional meetings at all levels. It is interesting to note differences in the support offered to state and local supervisors: 80% of state and 50% of local supervisors receive released time and funds for state meetings; 43% of state and 37% of local for regional meetings; 63% of state and 49% of local for ASHA conventions.

Clinicians reported on provisions made for reimbursement to them for various kinds of expenses (Table 4-15). (Unfortunately comparable information was not secured from program supervisors.) A travel allowance is commonly provided where it is needed, almost three-fourths of clinicians indicating that they receive such an allowance. No question was asked about the adequacy of the travel allowance. Reimbursement for purchase of professional books is much less common, three-fifths of the clinicians nationwide receiving none, and reimbursement for payment of professional organization fees and for the costs of professional training is rare.

As was pointed out in Chapter II (see Table 2-4), clinicians are not completely happy with the working situation in which they find themselves. About one-third report their equipment to be inadequate, one-fifth say their materials and supplies are inadequate, and fully one-half complain that their therapy rooms are inadequate.

Discussion

It can be seen from a review of the points covered in this chapter that the 'mechanics' of program organization and management are not simply minor details that somehow take care of themselves. Implementation of programs demands an inspired vision of the place which special education of speech- and hearing-impaired children can assume in the broad plan of general public education and also a familiarity with infinitely varied minutiae of laws and regulations, budgeting, scheduling, record keeping, and reporting. Where is one to learn how to organize and manage and program? At what stage of training and in what setting does one learn what works best and next best and what one can settle for with a clear conscience?

The members of Work Group III have learned from the questions asked and answered that they know all too little about precisely how a program should be set up and operated—and they feel that many more questions require answers. The great variety of practice observed across the nation attests to the fact that nobody knows for sure at what grade levels speech correction should be concentrated or how many children one can effectively help at once or how often or for how long he should meet a child for speech correction or what a reasonable caseload is. It is evident that systematic study of all these matters should be undertaken, and training institutions can assist in the systematic dissemination of information presently available or to be gathered in the future by offering courses devoted exclusively to program management.

There is a marked lack of communication within and between the various levels of program. The data gathered in this survey suggest that although large numbers of clinicians spend time keeping records and writing reports and many supervisors and others read and use their reports, large numbers do not, and the reports prepared and read vary from program to program. Efficient management implies effective communication of some minimum amount of essential information and attitude between certain key personnel. It is yet to be learned of what this minimum amount consists and how it is most effectively communicated between what personnel. Future investigations hopefully will reveal the relationship between type and frequency of record keeping and reporting and caliber of program.

There is an impressive concentration of services at the kindergarten and primary grade levels, and the great majority (81%) of pupils in the caseload are receiving attention because of their articulation. The coupling of these two facts raises serious questions: is the trained clinician putting his special skills to work where they are most needed? do the speech characteristics he is working with constitute speech *problems?* are his cases speech-impaired, speech-handicapped in any significant sense? is he adequately distinguishing between speech problems and maturational misarticulations? is he devoting his trained efforts and all too limited 'speech class time' to children who might more effectively be served by well-guided classroom teachers? is he doing the child a disservice by labeling, directly or indirectly, his maturational characteristics as a speech *problem* (or worse, a speech *defect*)? is the child with a severe problem scheduled and treated differently from children with lesser difficulties and is he followed adequately through his intermediate and secondary school years? Cooperative study of these questions by college faculty members and public school clinicians would appear to be a desirable means of strengthening the functions of each.

It is not just because of academic interest but out of an awareness of deep ethical responsibility that the profession must investigate rigorously the relationships between severity of problem and size of caseload, size of caseload and dismissal rate, grade level of concentration of therapy and dismissal rate, size of group and dismissal rate, and frequency and length of therapy session and dismissal rate, for the purpose of program organization and program management is not to perpetuate and magnify the program but to facilitate services for children and to dismiss them improved.

It is apparent that the public school clinician is confronted with a sizeable responsibility in determining how best to organize his program. On the one hand, he has a strong drive to provide services of high quality while, on the other hand, he has an equally strong motivation to serve all speech-impaired children. He is unable to achieve both aims in most situations, so he seeks a compromise.

The reported average caseload of 130 children is believed to be a case in point. There are undoubtedly those who question such a compromise. Hopefully these individuals will also direct attention to the problem of training clinicians for such decision-making responsibilities. The judgments presently made by the clinician cannot be divorced from his formalized preparation. If the size of this caseload seems unreasonable, how may training content be revised and what other actions may be taken better to prepare the public school clinician for the judgments he has to make?

The public school clinician is to be admired and respected for his many accomplishments and his effort to upgrade the quality of his services. He is aware of the inadequacies in his program and constantly strives for improvement of his services. In the meantime and until more answers are found, he would appear to be the best judge of how to allocate his time.

Summary

The school systems sampled in the National Survey range widely in size—from one-school systems to systems comprising more than 90 schools. Over half the clinicians responding work in systems consisting of 20 or fewer elementary, junior high, and senior high schools. The speech and hearing programs represented are for the most part well established, about half of them being at least 10 years old.

Clinicians serve varying numbers of schools, over half serving from three to six schools, 30% serving more than that. Budget limitations are reported by half the clinicians to constitute the main determinant of the number of clinicians hired by a system, other important determinants being size of caseload and the supply of trained clinicians.

About three-fourths of the clinicians work primarily with children in kindergarten, first grade, and second grade. The nationwide mean current caseload is approximately 130 children, while the mean number of children seen at least weekly is 111. Approximately half the clinicians feel that the size of their caseload is not ideal. About 81% of the caseload is comprised of children with articulation problems, 6.5% of children who stutter. About nine-tenths of the children receive speech therapy in groups, four or five children in a group on the average, half the groups meeting twice weekly, one-third only once weekly. Half the clinicians feel that the frequency of therapy meetings is not satisfactory. Eighty-six per cent of the clinicians use group sessions between 15 and 34 minutes in length.

Record-keeping practices vary widely, as do practices in report preparation and submission. The data indicate that there is probably inadequate communication within and between the various levels of program organization.

State reimbursement of local remedial speech programs is the rule, although the amount of reimbursement was not determined. Local budgets are typically formulated by supervisors, over half the clinicians reporting that they are not consulted on budgetary matters. Travel allowances to clinicians are the rule where travel is necessary. Authorization of payment for other professional expenses is much more limited, regional variations in reimbursement practice being rather marked.

V. Clinical Practice: Diagnosis and Measurement

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Work Group II was charged with responsibility for describing and evaluating clinical practice in the areas of diagnosis and measurement in public school speech and hearing service programs.

The term 'diagnosis' was defined to include the original categorization of a disorder, the continued assessment of the appropriateness of the categorization, and appraisal of the progress made by the person with the disorder. Several steps are involved in the diagnostic process: (a) case finding through speech surveys, hearing screening, or teacher referrals; (b) case evaluation through intensive, comprehensive testing and the gathering and use of supplementary information derived from interviews and various kinds of histories and records (medical, social, educational, psychological); (c) case categorization and statement of prognosis; and (d) recommendations for disposition. 'Measurement' was defined to include (a) the use of any diagnostic tool and (b) the evaluation of remedial work through continuing appraisal of a child's progress.

The answers obtained from clinicians and supervisors to questions bearing on diagnosis and measurement will be reported under three main headings: (a) case finding, (b) procedures in diagnosis and evaluation, and (c) referrals and reports.

Case Finding

Hearing Screening. Table 5-1 indicates the regularity with which audiological screening is done in the public schools of the country. According to 705 clinicians responding, in approximately half of the school systems served, screening is done annually in half of the grades (children thus being tested every other year), while in another one-fourth of the systems children are tested every third or fourth year. In 5% of the systems only those children specifically referred for hearing

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TABLE 5-1. Coverage of annual audiological screening in public schools in various geographical regions. Values represent percentages of clinicians responding as indicated. Total = 705.

Region	*Coverage of Annual Screening*				
	Every Other Grade	*Every Third or Fourth Grade*	*In Only Two Grades*	*Referrals Only*	*None*
Northeast	71	14	9	2	1
Midwest	35	44	13	3	2
Southeast	26	26	23	10	3
Southwest-Mountain-Hawaii	45	22	17	9	3
West Coast	56	17	16	9	1
Total	48	27	14	5	2

tests are screened audiologically, and in only 2% is no provision made for audiological screening. The Northeast region and the West Coast report the highest percentages of school systems providing biennial hearing screening.

As is shown in Figure 5-1, in about one-half of the school systems nationwide the nurse is primarily responsible for audiological screening, the speech and hearing clinician being the next most frequently-named person having this responsibility (21%.) followed by county health department personnel (13%). Table 5-2 shows that the five geographical regions have rather widely differing practices with regard to the assignment of responsibility for this work, speech and hearing clinicians carrying the responsibility more often in the Southeast and Southwest-Mountain-Hawaii regions than in the other regions and health department personnel more often on the West Coast.

One out of five speech and hearing clinicians, then, must include time for hearing screening in his schedule of activities. Table 5-3 indicates the amount of time devoted to hearing screening by those clinicians who carry the responsibility for this work. Even though this task requires only a small percentage of their annual work load, it is sufficiently important to warrant special training.

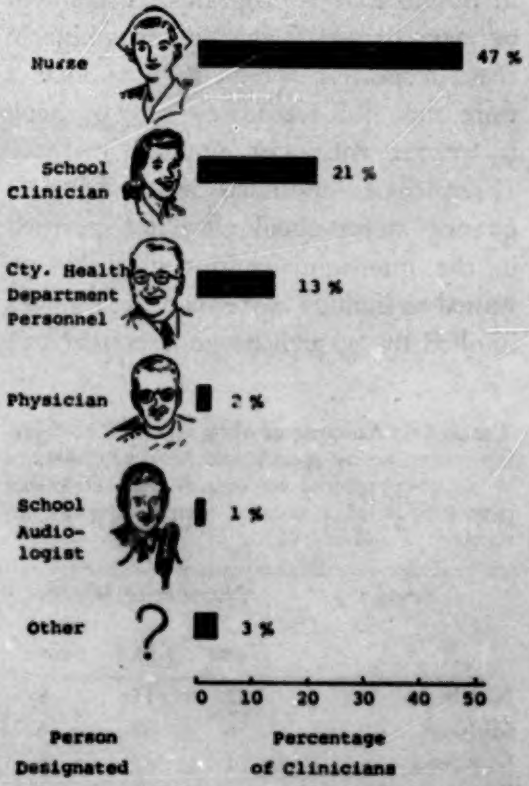

FIGURE 5-1. Persons principally responsible for doing public school audiological screening as designated by clinicians in nationwide sample (N = 705).

Table 5-2. Persons carrying primary responsibility for audiological screening in public schools as reported by a total of 705 clinicians representing all geographical regions. Values represent percentages of clinicians responding as indicated.

Region	*Person Responsible*					
	Nurse	*Speech & Hearing Clinician*	*County Health Department Personnel*	*School Audiologist*	*Physician*	*Other*
Northeast	59	10	12	0	3	2
Midwest	48	25	14	1	1	3
Southeast	15	37	9	3	4	5
Southwest-Mountain-Hawaii	55	35	0	1	1	0
West Coast	41	9	30	0	1	8
Total	47	21	13	1	2	3

Table 5-4 reports the frequency with which various audiometric screening tests are used throughout the country in public school programs. Agreement between geographical regions is high in these responses, which indicate that a pure tone full-frequency sweep check is by far the most popular method. (Frequencies included in a 'full-frequency' sweep check were not specified in the questionnaire but must be assumed to include more than the number implied by 'speech range' frequencies.)

Table 5-3. Amount of time devoted to hearing screening by speech and hearing clinicians in all geographical regions. Values represent percentages of clinicians responding as indicated. Total = 705.

Region	*Number of Weeks*		
	None	*1 to 3*	*4 or more*
Northeast	72	15	8
Midwest	56	38	6
Southeast	35	47	16
Southwest-Mountain-Hawaii	49	39	12
West Coast	66	20	14
Total	58	30	9

Speech Screening. Several techniques are used by clinicians in order to locate children with speech problems. Table 5-5 indicates that surveys and referrals by teachers are most frequently used, class visitation and questionnaires relatively infrequently. (See also Figure 5-2). Some rather marked regional differences can be noted, with relatively less use of the survey method in the Southwest-Mountain-Hawaii region than in the other regions whereas the method is used with great frequency in

Table 5-4. Percentages of 705 clinicians indicating the use of various procedures in audiological screening. Twenty-three per cent did not respond.

Procedure	*Use*	*Do Not Use*
Pure tone full-frequency sweep check	61	16
Pure tone speech range sweep check	21	56
Massachusetts test	6	70
Recorded descending numbers test	5	71
Pure tone single or dual frequency test	2	75

Table 5-5. Relative frequency of use of four methods of locating children with speech disorders, as reported by a total of 705 clinicians representing all geographical regions. Values represent percentages of respondents replying as indicated. 1 = frequently; 2= occasionally; 3 = rarely.

Region	*Survey Method*			*Referral Method*			*Class Visitation Method*			*Questionnaire or Inventory Method*		
	1	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
Northeast	61	19	11	64	29	2	20	38	27	7	20	50
Midwest	83	12	2	63	35	1	5	33	47	7	13	58
Southeast	51	27	8	72	24	1	17	34	34	11	13	50
Southwest-Mountain-Hawaii	36	32	17	79	15	0	9	34	42	12	11	52
West Coast	52	24	14	82	14	1	16	34	35	11	16	40
Total	64	19	8	68	27	1	12	34	37	9	15	51

the Midwest; the West Coast and Southwest-Mountain-Hawaii region make more use of the referral method than do the other regions.

Similar preferences were reported by 141 supervisors of speech and hearing programs when asked to indicate what procedures they employ in case finding.

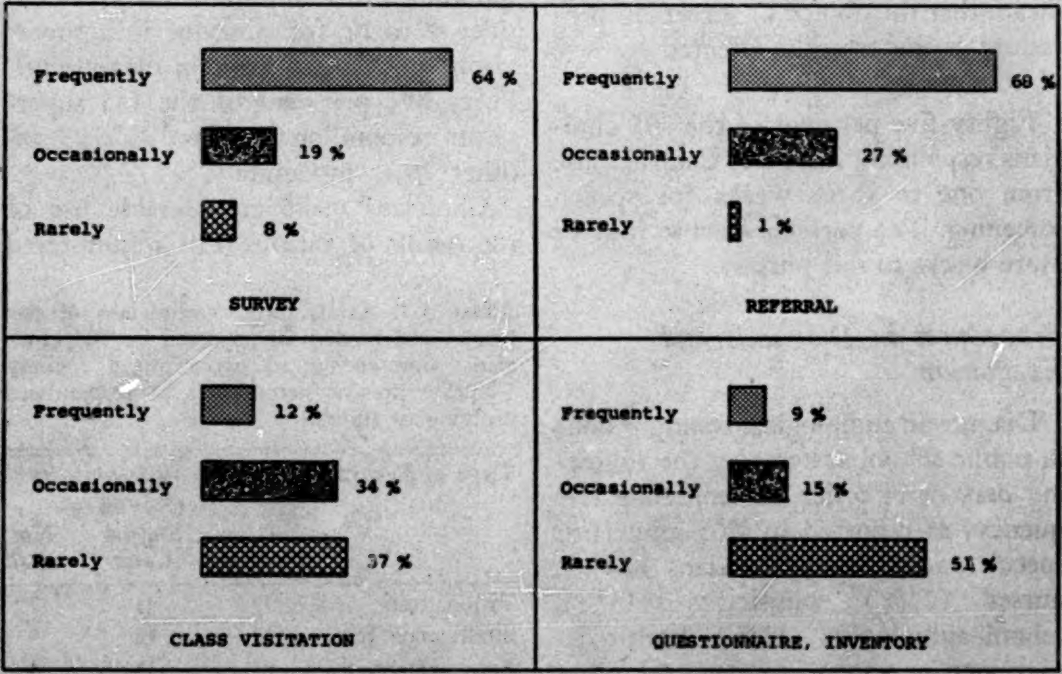

Figure 5-2. Relative frequency of use of four procedures for locating school children with speech problems as reported by clinicians in nationwide sample (N = 705).

TABLE 5-6. Relative frequency of use of four methods of locating children with speech disorders as reported by 141 supervisors of speech and hearing programs. Values represent percentages of respondents replying as indicated.

Method	*Frequency of Use*		
	Frequently	*Occasionally*	*Rarely*
Survey	72	19	5
Referral	78	16	2
Class visitation	19	33	43
Questionnaire or inventory	11	28	57

Table 5-6 presents their responses in terms of national averages; regional differences were similar to those found among clinicians.

Responses regarding case-finding procedures were analyzed in terms of size of community in which the speech and hearing service was rendered. No trends were apparent which would indicate that the choice of screening procedure is importantly affected by size of community.

Eighty-five per cent of the 705 clinicians responding indicated that they use from one to three weeks for speech screening. Ten per cent devote four or more weeks to this purpose.

Procedures in Diagnosis and Evaluation

Diagnostic audiological testing is done in public school systems by the following persons in order of decreasing frequency, as reported by 705 clinicians: speech and hearing clinicians (24%), nurses (22%), physicians (15%), school audiologists (13%), health department personnel (4%), and other personnel (7%). There is considerable uniformity in this regard in the five geographical regions except that in the Northeast and on the West Coast more of this responsibility is shouldered by audiologists and otologists.

The results of such hearing tests are reported by about 90% of clinicians to be readily available to them.

No questions were asked of the clinicians specifically regarding the nature or comprehensiveness of diagnostic speech examinations administered to children accepted in the case load. It is assumed that either the individual responsible for admission of the child to the caseload or the clinician conducting therapy takes steps to describe the child's problem in detail so as to arrive at some reasonable categorization of his problem and derive helpful clues for therapy. The probably important role of the speech and hearing supervisor in this aspect of the work is suggested by the responses of supervisors to the question 'How important do you consider it to be for someone in a supervisory position to assist in diagnosing?' Forty-five per cent of the 141 supervisors responding answered 'Very,' another 28% 'moderately.'

Clinicians make considerable use of the results of various tests administered

TABLE 5-7. Availability to clinicians of test results and records as reported by 705 clinicians representing all geographical regions. Values represent percentages of respondents replying as shown.

Type of Record	*Degree of Availability*		
	Routinely	*Only in Special Cases*	*Not at all*
Vision tests	77	15	7
Intelligence tests	77	18	3
Achievement tests	83	13	4
Health records	86	9	4
Cumulative records	87	9	3

to pupils they are working with, as well as school and health records, all of which may be helpful in diagnosis and the planning of therapy. The fact that clinicians are in general fairly well supplied with these types of supplementary information is indicated in Table 5-7, which reports national averages. Regional differences in the availability of such information are not great.

Sixty per cent of the clinicians indicate that they use the results of intelligence tests as aids both in diagnosis and in planning therapy. Of particular interest are the results of a cross-tabulation of extent of academic training of the clinician against use made by him of intelligence test results: the higher the level of training of the clinician, the more his use of these test results.

Undoubtedly clinicians secure through contact with parents and teachers much information which is useful in diagnosis and the planning of therapy. The extent of these contacts is suggested by the responses of clinicians to questions about the advisability of their establishing personal contacts with parents and teachers. Forty per cent of the 705 clinicians responding think that contacts should be established with all parents, another 46% favoring establishing contacts with most parents; 12% favor seeking out the parents of only the most severely handicapped. All clinicians consider meetings with teachers to be desirable, although about half of the clinicians prefer informal meetings as occasions demand rather than more formal meetings scheduled with some regularity.

As the clinician conducts a therapy program, he finds it essential to evaluate it periodically. Only thus can he discern the correctness of his original diagnosis, the need to alter it, and the desirability of changing directions or emphasis in therapy. Clinicians report that there are several ways in which they effect continued observation of their pupils in settings other than the therapy situation (Table 5-8). Classroom teachers' reports are most frequently used, with considerable use also being made of reports from parents.

TABLE 5-8. Frequency of use of four methods by which 705 clinicians evaluate the extent of their pupils' speech problems in nonclinical situations and the results of therapy. Values represent percentages of respondents.

Method	*Frequency of Use*		
	Regularly	*Occasionally*	*Not at all*
Classroom teachers' reports	55	40	2
Parents' reports	24	69	[illegible]
Classroom visits	10	65	22
Visits to other school activities	8	69	21

Some clinicians and supervisors are concerned about their diagnostic procedures to the extent that in connection with their work they have engaged actively in research on the development of testing techniques and devices. Thirteen per cent of clinicians and 28% of supervisors report such research activity.

Referrals and Reports

The reliance of the public school clinician upon specialists within his own and other disciplines in the making of an adequate diagnosis is pointed out by the responses of clinicians to questions about their practices regarding referrals. Table 2-5 (Chapter II) shows the frequency with which 705 clinicians make referrals to outside agencies, including speech and hearing clinics, other rehabilitation agencies, members of the medical profession, and psychological service agencies. The majority use all referral agencies at least occasionally although 10% or more have no speech and hearing clinic or rehabilitation agency available for convenient referral. It would be worthwhile to investigate the reasons why clinicians fail to make referrals or make them only occasionally when appropriate agencies are available. Perhaps they consider themselves capable of making adequate diagnoses without consultation (with the apparent exception of instances which seem to demand medical attention), they may be fearful of consultation with other agencies, they may be unfamiliar with procedures to follow in making referrals, or they may lack time to follow up on making referrals.

A specific question was asked 705 clinicians about the medical referral of children found to have a hearing loss. One half report that they refer all children who fail audiometric screening tests; 17% refer those children who appear to have mild, moderate, and severe losses; 22% refer those who display moderate and severe loss; and 4% refer only those who display a severe loss.

Clinicians make a general practice of furnishing reports of speech testing to personnel who should know the results (teachers, administrators, supervisors), and those who do hearing testing (a much smaller number, as indicated in Table 5-2) follow the same practice. Reporting practices are reviewed in detail in Chapter IV.

Discussion

The review of the literature on diagnostic principles and procedures which was accomplished by Work Group II indicated that a much greater amount of material is available in the area of hearing than in the area of speech. More of such materials are to be found in journals and other publications than in books. The nature and extent of printed materials might well be brought to the attention of speech and hearing clinicians through the publication of abstracts and annotated bibliographies.

Although much information has been gathered in the present survey, it remains unclear as to what clinicians consider to be an adequate diagnostic workup. This survey does not reveal what specific commercially available or individually produced materials or what individual modifications of traditional testing procedures are employed by clinicians in diagnosing and making a prognosis concerning the various types of speech disorders. Similarly little is known about the regularity and methodology employed in re-evaluations.

Chapter VIII summarizes information pertaining to the kinds of training which public school clinicians have had and which future clinicians are currently receiving. However, little detail is available concerning the clinical training speech and hearing personnel receive specifically in the areas of diagnosis and appraisal. Whereas some institutions offer separate courses devoted to diagnostic principles and procedures in speech pathology and audiology, some apparently cover aspects of these matters in various clinical practice courses. No information has been secured about the emphasis placed upon diagnosis in academic curricula nor about clinicians' evaluation of their practicum in diagnosis.

Analysis of data available suggests that there is a need to introduce into the public schools more consistent and precise methods of examination of speech disorders, more careful scrutiny of current procedures to determine whether they are appropriate and adequate, and a more professional spirit which will motivate a clinician to seek out, get to know, and use the services of other professional people who can help him materially in the carrying out of his important responsibilities as a diagnostician. These improvements might be effected by increasing the emphasis upon diagnostic principles and procedures in training programs and increasing during training the amount of supervised practicum in the area of diagnosis.

Summary

Responses from clinicians and supervisors indicate that practically all public schools have provided for audiological screening, usually no less frequently than in every fourth year of a child's school attendance, although in a small percentage only those children referred for the purpose are screened audiologically. Nurses most frequently are primarily responsible for hearing screening, although speech and hearing clinicians do a substantial amount of it, especially in the Southeast, the Southwest-Mountain-Hawaii region, and the Midwest. The most frequently-used screening test is a full-frequency sweep check test with a pure tone audiometer.

Clinicians locate children with speech problems primarily by means of surveys and through teacher referrals. Speech screening usually occupies from one to three weeks of the clinician's time each year.

Little information has been gathered about specific procedures used by clinicians in analyzing their pupils' speech problems for the purpose of charting programs of therapy. School systems appear to cooperate well in most instances in making background and other information available to clinicians in the form of test results and health and academic records. Clinicians also make generous use of consultation with teachers and parents in order to gain background information and to secure an evaluation of progress made by the children in therapy. Some clinicians and supervisors report sufficient concern about their diagnostic procedures to have engaged actively in research on the development of new testing techniques.

Most clinicians make referrals of cases to other professional persons or to agencies at least occasionally. However, the fact that such referrals are relatively infrequent suggests that there is a need for consideration of what constitutes an adequate diagnostic workup in various speech disorders. The possible need for more emphasis during training upon diagnostic procedures and more supervised practice in their use is suggested.

VI. Clinical Practice: Remedial Procedures

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Work Group I was charged with responsibility for investigation of the remedial procedures being used in public school speech and hearing programs across the nation to discern which practices are most commonly used, what procedures tend to cluster together in the practice of clinicians, what areas of agreement and disagreement exist with regard to therapy practices, and what problems exist in carrying out therapy programs.

Questions about the use of various therapy techniques were submitted to clinicians in all parts of the country working in all types of speech and hearing programs. The responses of a total of 749 clinicians constitute the bulk of the data here reported. In addition, approximately 200 clinicians representing rural and urban programs in the states of California, Illinois, Kansas, Minnesota, North Dakota, Washington, and Wisconsin were personally interviewed about their philosophies and practices in therapy, their problems, and their hopes for the future development of public school remedial speech work.

A subcommittee of Work Group IX, Research, examined 182 books, compiled a bibliography of 364 theses and dissertations, and located a small number of films and pamphlets pertaining to remedial procedures. About one-fourth of the books (44) suggest remedial procedures for a variety of speech and hearing disorders; one-fourth (49) deal specifically with articulation problems and almost one-fourth (34) deal with hearing problems. Of the remainder, 17 are devoted to stuttering, 13 to cerebral palsy, seven to voice disorders, five to deafness, four to delayed speech, two to cleft palate, and one to aphasia. Almost half of the theses and dissertations (138) pertain to articulation problems; 46 are devoted to hearing and 36 to stuttering. The 20 films relate primarily to organic disorders, with four on stuttering and only one on articula-

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TABLE 6-1. Percentages of 749 clinicians reporting use of group therapy and two methods of grouping in working with six types of speech disorders.

Disorder	*Frequency of Use*		
	*Often**	*Sometimes**	*Never†*
Group Therapy			
Articulation	81	10	9
Stuttering	66	10	24
Delayed Speech	54	3	43
Voice	50	5	45
Hard of Hearing	7	7	86
Organic	42	4	54
Homogeneous Grouping			
Articulation	52	20	28
Stuttering	45	20	35
Delayed Speech	32	12	56
Voice	31	13	56
Hard of Hearing	32	13	55
Organic	27	11	62
Heterogeneous Grouping			
Articulation	41	32	27
Stuttering	23	17	60
Delayed Speech	26	17	57
Voice	24	15	61
Hard of Hearing	21	13	66
Organic	21	13	66

*Some respondents to the questionnaire expressed their judgment with respect to the use of group therapy in the treatment of given disorders even though those disorders were not represented in their current caseload.

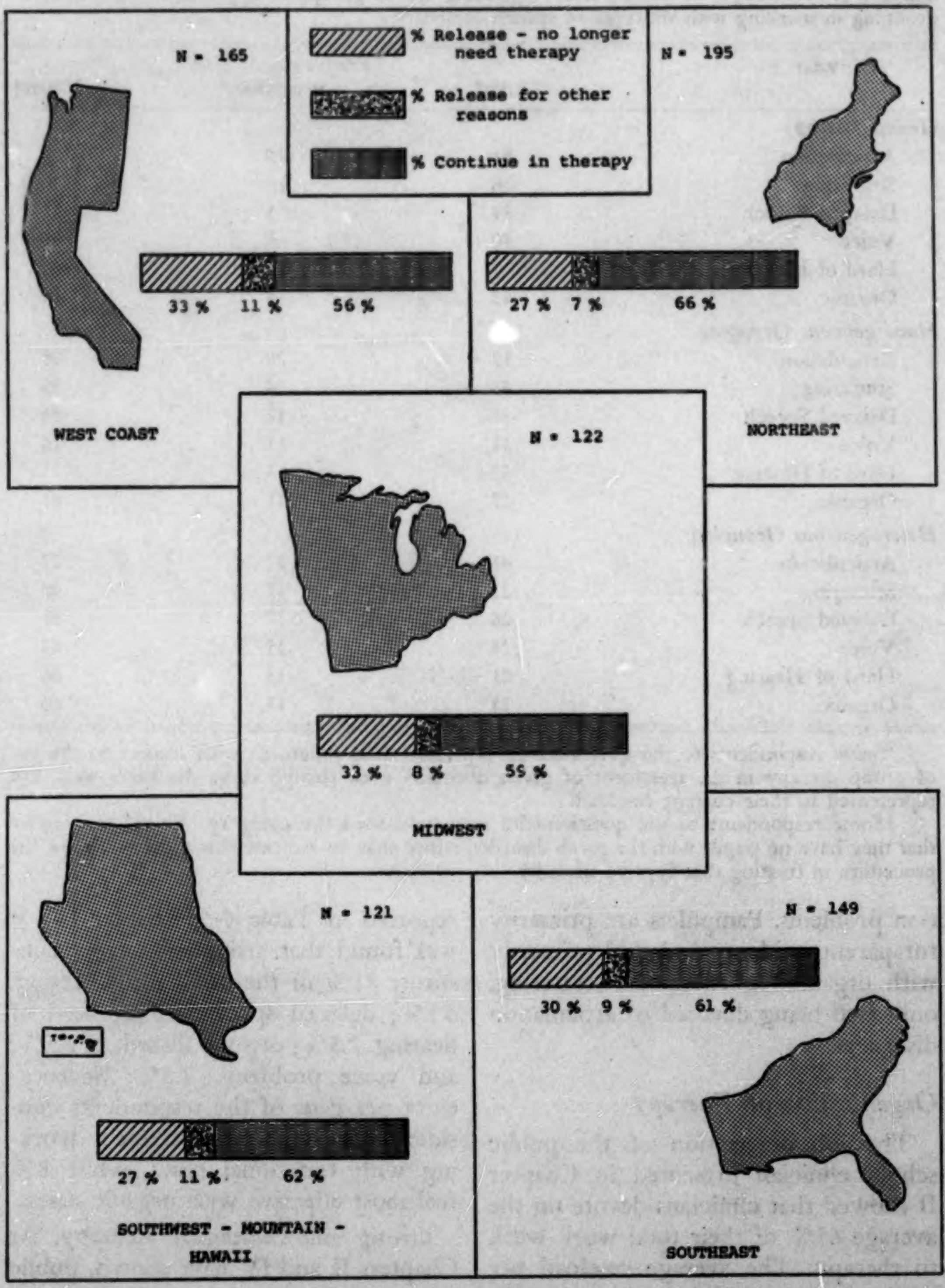
†Some respondents to the questionnaire may have used the category 'Never' to indicate that they have no pupils with the given disorder rather than to indicate that they never use the procedure in treating that type of disorder.

tion problems. Pamphlets are primarily for parent guidance and deal primarily with organic disorders and stuttering, only two being devoted to articulation disorders.

Organization of Therapy

The job description of the public school clinician presented in Chapter II showed that clinicians devote on the average 65% of their total work week to therapy. The average caseload per clinician nationwide is approximately 130 children. The breakdown of these cases according to type of disorder was reported in Table 4-6, Chapter IV; it was found that articulation cases constitute 81% of the caseload; stuttering, 6.5%; delayed speech, 4.5%; hard of hearing, 2.5%; organic disorders, 2.5%; and voice problems, 2.3%. Seventy-eight per cent of the respondents consider themselves most effective in working with functional cases, while 8% feel most effective with organic cases.

Group and Individual Therapy. As Chapters II and IV have shown, public school clinicians on the average see 10 children individually each week and 101 children in groups of four or five,



CASE DISMISSAL RATES

Figure 6-1. Projected case dismissal rates for current year reported by clinicians in five geographic regions.

usually twice weekly but in some cases only once weekly. Out of 705 clinicians responding 14% state that they conduct no individual therapy. When these 705 clinicians were asked in which type of therapy situation they consider themselves most effective, 51% indicated the group and 37% the individual situation. Fifty-six per cent consider themselves most effective when the group they work with is homogeneous with regard to type of speech disorder; 29% prefer heterogeneous groups.

Table 6-1 shows the practices followed by a representative sample of 749 clinicians in group work as it pertains to each of six types of disorders. It can be seen that group work is used with greatest frequency in connection with articulation and stuttering cases, seldom with hard of hearing cases. Clinicians are least likely to group organic and hard of hearing cases with other types of disorders.

In carrying out therapy programs for specific children and groups of children, most clinicians (61% of 757 responding) use informal lesson plans. Another 35% use more carefully developed plans written out by themselves in advance. Fewer than 1% use plans suggested or prepared by their supervisor.

Case Dismissal. Clinicians were asked to estimate the numbers they would probably release from their therapy programs by the end of the current year. A total of 705 clinicians reported the total number enrolled for therapy for the year. The average total nationwide is 152. (Averages ranged from 121 in the Southwest-Mountain-Hawaii region to 195 in the Northeast.) Of these it was estimated that 45 (approximately 30%) would be released because of no longer requiring therapy. Another 13 (8.5%) would be released for other reasons. A breakdown of these data by geographic region is presented in Figure 6-1.

Additional information concerning dismissal policies was secured in the personal interviews. There is general agreement that complete elimination of the problem is often not a reasonable requirement for dismissal. In the case of articulation problems the goal is often reached when the child has attained such mastery of the speech sounds that the classroom teacher or the parent can take over from the clinician and oversee the final steps of carry-over into conversational speech. Stuttering therapy is terminated when the child is 'handling his speech adequately.' The child's attainment of acceptable conversational speech in terms of his particular structural or physiological limitations is the criterion of dismissal in many cases. In other cases the child proves unresponsive to therapy or it is concluded that a continuation of therapy would yield no further results.

Analysis by Type of Disorder

Table 6-2 presents for each of six types of disorders the seven remedial procedures which 749 clinicians report they most frequently use. Table 6-3 shows which procedures are least frequently used in connection with the various disorders. All procedures are listed which at least 90% of the respondents indicated they *never* use with one or more types of disorders. It can be seen that breath chewing is used in the treatment of none of the disorders by as many as 10% of the clinicians.

Table 6-2. Remedial procedures most frequently used by 749 clinicians in working with each of six types of disorders. Values represent percentages of clinicians indicating frequency of use shown.

Procedure	*Frequency of Use*	
	Often	*Sometimes*
Articulation		
Auditory discrimination training	88	8
Ear training	85	10
Mirror observation and practice	75	22
Speech sound games	75	19
Sound drills (word lists, sentences, rhymes)	66	27
Parent guidance	59	29
Imitation	58	29
Stuttering		
Parent guidance	59	30
Mirror observation and practice	46	11
Group discussion	45	36
Tape recordings	42	34
Changing stuttering pattern	39	38
Work on eye contact	38	27
Oral reading alone	34	35
Delayed Speech		
Ear training	62	6
Auditory discrimination training	59	4
Speech sound games	58	13
Parent guidance	54	24
Mirror observation and practice	50	11
Sound drills (word lists, sentences, rhymes)	41	11
Imitation	40	16
Voice		
Ear training	59	5
Auditory discrimination training	53	3
Parent guidance	46	18
Tape recordings	42	33
Imitation	34	17
Oral reading alone	29	30
Breathing exercises and drills	24	35
Hard of Hearing		
Auditory discrimination	62	6
Ear training	56	7
Parent guidance	50	20
Mirror observation and practice	42	11
Speech sound games	42	11
Building 'life situation' lipreading vocabulary	36	30
Visual-auditory stimulation	34	20
Organic		
Mirror observation and practice	51	11
Ear training	51	4
Parent guidance	50	20
Speech sound games	45	11
Sound drills (word lists, sentences, rhymes)	38	14
Tape recordings	35	25
Lip, tongue, and jaw exercises	31	28

Table 6-3. Remedial procedures infrequently used in the management of six types of speech disorders. Values represent percentages of 749 clinicians who report that they never use the procedure in working with the disorder shown.

Procedure	*Type of Disorder*					
	Articulation	*Stuttering*	*Delayed Speech*	*Voice Problems*	*Hard of Hearing*	*Organic Problems*
Advertising one's problem			97	92		90
Autobiography			93		91	90
Babbling		93		94	91	
Bibliotherapy	92		97	94	94	93
Breath chewing	96	91	98	94	99	94
Breathing exercises, drills					90	
Building 'life situation' lipreading vocabulary	93	96	94	98		96
Changing stuttering pattern	99		99	98	99	95
Establishing unilaterality	95		94	98	98	93
Group singing					92	
Manipulation of speech structures		90				
Negative practice					91	
Penalizing the error					92	
Rate drills			95		96	93
Rhythmic training of paired muscles			93	95	96	
Simultaneous talking, writing		96	92		94	
Soft palate exercises, drills		96			91	
Throat muscle exercises, drills		90	94		95	
Tongue twisters				91	93	
Use of rhythm instruments			90	93		90
Voiceless speech games, activities				90		90

The building of a 'life situation' lipreading vocabulary is obviously confined to work with the hard of hearing (36% of clinicians use it often, 30% sometimes with the hard of hearing), just as changing the stuttering pattern is restricted to the disorder of stuttering (39% of clinicians use it often, 38% sometimes with stutterers). Two other procedures the use of which is largely limited to work with stuttering are bibliotherapy (2% use it often, 15% sometimes with stutterers) and establishing unilaterality (2% use it often, 12% sometimes with stutterers).

Information about the number of different procedures used by clinicians in working with six types of disorders

TABLE 6-4. Summary of numbers of different remedial procedures (out of total of 60) used often or occasionally by designated percentages of 749 clinicians.

Type of Disorder	*Frequency of Use*			
	Often		*Occasionally*	
	By 50% or more	*By 25% or more*	*By 50% or more*	*By 25% or more*
Articulation	10	20	0	29
Stuttering	2	11	1	19
Delayed speech	6	15	0	4
Voice problems	3	13	0	6
Hard of hearing	2	12	0	2
Organic problems	2	14	0	4

is presented in Table 6-4. One may conclude that there are more procedures applicable to many children and therefore used generally by clinicians in the case of articulation problems than in the case of the other five types of disorders. In the other five types there are perhaps fewer techniques applicable to the majority of cases; each case may be more distinctive and require specific and individual remedial procedures. The list of such possible procedures is no doubt a long one; the list of 60 procedures submitted to the clinicians in the questionnaire probably omitted certain procedures which are in common use and included procedures seldom used. The truth of the latter statement is shown by the fact that more than half of the 60 remedial procedures listed are reportedly used often in working with any disorder by fewer than 25% of the respondents.

Factor Analysis. It was thought that an analysis of the remedial techniques used by a large number of clinicians in working with certain disorders might reveal the existence of distinctive schools of thought regarding therapy. The statistical technique of factor analysis was used to determine whether there are significant patterns (groupings) of procedures characteristic of the clinical practice of substantial numbers of clinicians in two diagnostic areas—articulation problems and stuttering. Procedures used in making the rotations and in computer programming were those outlined by Kaiser (*1*, *2*).

The analyses did not indicate the existence of any strong therapeutic schools of thought. On the contrary, they suggested that clinicians tend to be eclectic and have their individual group of favorite standard procedures.

The failure of the factor analyses to discover any strong tendencies may have resulted from ambiguity of wording of some of the items, lack of agreement concerning the specific application of some procedures, inadequate sampling of procedures or clinicians or both, or other causes. At any rate, there did not emerge a few strong factors that could account for any great amount of variance. The eight factors rotated in both analyses—articulation problems and stuttering—account for less than one-third of the variance.

It should be pointed out that factor analysis has been used in a restricted manner in this study—to explore a por-

Table 6-5. Results of factor analysis of remedial procedures used with articulation problems. Factors are listed in order of decreasing importance. Most heavily weighted procedures clustered in each factor are listed alphabetically together with their weights.

Factor Number	*Most Heavily Weighted Procedures*	*Weights*
I	Breathing exercises, drills	.53
	Lip, tongue, jaw exercises	.56
	Manipulation of speech structures	.41
	Nonsense syllable drills	.47
	Phonation exercises, drills	.59
	Practice with isolated vowels	.51
	Soft palate exercises, drills	.55
	Sound drills with word lists, sentences, rhymes	.42
	Speech rhythm exercises, drills	.47
	Throat muscle exercises, drills	.48
	Tongue twisters	.35
II	Auditory discrimination training	.53
	Ear training	.59
	Group therapy	.36
	Homogeneous grouping	.36
	Imitation	.48
	Mirror observation, practice	.50
	Negative practice	.36
	Nonsense syllable drills	.39
	Sound drills with word lists, sentences, rhymes	.36
	Speech sound games	.43
	Visual-auditory stimulation	.36
III	Choral reading	.65
	Creative dramatics, puppetry, role playing	.44
	Negative practice	.41
	Penalizing error	.40
	Relaxation games, activities	.51
	Unison oral reading	.47
IV	Directive counseling	.55
	Modified play, release therapy	.54
	Non-directive counseling	.57
	Psychotherapy	.52
V	Babbling	.39
	Use of rhythm instruments	.47
	Voiceless speech games, activities	.68
	Whispered voice, phantom lip movements	.69
VI	Bibliotherapy	.36
	Heterogeneous grouping	.47
	Oral reading	.41
	Tongue twisters	.36
	Unison oral reading	.40
VII	Commercial speech records	.57
	Creative dramatics, pupperty, role playing	.39
	Motion pictures, film strips	.56
	Tape recordings	.59
	Telephone drills	.42
	Voice recordings	.59
VIII	Checking and rating devices	.44
	Clinical command	.51
	Group discussion	.45

Table 6-6. Results of factor analysis of remedial procedures used with stuttering problems. Factors are listed in order of decreasing importance. Most heavily weighted procedures clustered in each factor are listed alphabetically together with their weights.

Factor Number	*Most Heavily Weighted Procedures*	*Weights*
I	Auditory discrimination training	.45
	Breathing exercises, drills	.36
	Ear training	.55
	Lip, tongue, jaw exercises	.62
	Manipulation of speech structures	.47
	Moto-kinesthetic method	.40
	Nonsense syllable drills	.61
	Phonation exercises, drills	.63
	Phonetic placement	.62
	Practice with isolated vowels	.60
	Sound drills with word lists, sentences, rhymes	.65
	Speech sound games	.52
	Tongue twisters	.46
	Visual-auditory stimulation	.51
II	Advertising one's problem	.59
	Changing stuttering pattern	.62
	Checking and rating devices	.48
	Eye contact	.60
	Imitation	.42
	Mirror observation, practice	.63
	Negative practice	.58
	Tape recordings	.36
III	Breathing exercises, drills	.39
	Choral reading	.61
	Oral reading	.47
	Relaxation games, activities	.36
	Speech rhythm exercises, drills	.54
	Unison oral reading	.67
	Unit situations, words and phrases	.45
IV	Breath chewing	.38
	Clinical command	.37
	Motion pictures, film strips	.39
	Soft palate exercises, drills	.38
	Use of rhythm instruments	.42
	Voiceless speech games, activities	.65
	Whispered voice, phantom lip movements	.63
V	Breath chewing	.40
	Commercial speech records	.39
	Establishing unilaterality	.53
	Manipulation of speech structures	.37
	Psychotherapy	.39
	Rhythmic training of paired muscles	.37
	Throat muscle exercises, drills	.44
VI	Creative dramatics, puppetry, role playing	.57
	Group discussion	.43
	Group therapy	.43
	Homogeneous grouping	.38
	Modified play, release therapy	.68
	Parent guidance	.50
	Psychotherapy	.37
	Relaxation games, activities	.49

(Continued on page 67)

TABLE 6-6 Continued from preceding page.

Factor Number	*Most Heavily Weighted Procedures*	*Weights*
VII	Homogeneous grouping	.38
	Tape recordings	.56
	Voice recordings	.59
VIII	Bibliotherapy	.44
	Group therapy	.37
	Heterogeneous grouping	.51
	Non-directive counseling	.42
	Penalizing the error	.49

tion of the domain of remedial procedures. Such an exploration can form the basis for more precise descriptions and, when the descriptions are sufficiently rigorous, for experimental investigations. The factors obtained may also constitute a starting place for those evaluating the curriculum in programs of training for public school clinicians.

Articulation. Table 6-5 presents eight factors which emerge from the analysis of procedures used with articulation problems. The factors are presented in order of decreasing importance, the most heavily weighted procedures in each factor being listed alphabetically together with their weights.

The procedures listed under Factors I and II are those primarily related to the development of correct articulation of speech sounds; they suggest a highly structured drill approach emphasizing speech sound production. Factors III and IV pertain to situational and 'psychological' approaches to articulation problems. Factor VII is a clearly defined audio-visual factor. (The fact that it is seventh does not suggest that it is of relatively little importance but rather that it did not account for as much of the variability as the first six factors.) The procedures grouped within each of the other factors do not seem to have an obvious relationship to one another. It is probable that some clinicians use a wide variety of approaches to articulation problems other than the most commonly used techniques clustered in Factors I and II.

Stuttering. Table 6-6 presents eight factors derived from the analysis of procedures used in the treatment of stuttering; the factors are listed in order of decreasing importance together with the most heavily weighted procedures in each.

Factor I appears to be a general factor; here are clustered a number of remedial procedures not currently recommended by most authorities on stuttering. It is likely that if factor analyses were to be done on each of the other disorders, a strong general factor would similarly emerge from each which would consist of procedures used by many clinicians with several types of cases. The fact that such a factor is first in the case of stuttering is trivial because of the extreme skewness of the distributions and because of the high incidence of clinicians who work with few stutterers.

Procedures recommended by many authorities are found in Factor II and in Factor VI, where appear the 'psychological' approaches to the stuttering child together with parent guidance, which all authorities agree is an important part of the remedial program for stutterers. A reasonable interpretation of the remaining factors is not obvious.

Analysis by Type of Procedure

A further examination will be made of the use of various remedial procedures, considering these in groups of procedures that appear to have certain characteristics in common and seeing how they are used in the treatment of the six types of disorder. The groupings that follow emerge in part from the foregoing factor analyses.

Table 6-7 lists seven procedures which involve furnishing to the child certain auditory, visual, tactile, or kinesthetic cues through various kinds of stimulation. The frequency of use of each in the management of six disorders is shown. (It can be assumed in this table and in Tables 6-8 through 6-13 that the difference between 100% and the sum of the percentages shown under 'often' and 'sometimes' for each procedure is the percentage of clinicians stating that they never use the procedure for that disorder.) It is surprising to discover from examination of Table 6-7 that the recognized applicability of auditory discrimination and ear training techniques to articulation problems is not carried over to nearly as great an extent in work with delayed speech and the speech of the hard of hearing or the organically impaired. Ear training is never used by 32% of clinicians in working with delayed speech or by 37% in working with the hard of hearing or by 45% in working with organic problems, all three types of problems typically involving some

Table 6-7. Frequency of use of seven remedial procedures involving specific sensory stimulation in the treatment of six types of disorders. Values represent percentages of 749 clinicians. O = Often; S = Sometimes.

Procedure	*Type of Disorder*											
	Articulation		*Stuttering*		*Delayed Speech*		*Voice Problems*		*Hard of Hearing*		*Organic Problems*	
	O	S	O	S	O	S	O	S	O	S	O	S
Auditory discrimination training	88	8	15	1	59	4	53	4	62	6	49	3
Ear training	85	10	24	2	62	6	59	5	56	7	51	4
Visual-auditory stimulation	48	27	16	7	34	18	20	9	34	20	28	14
Mirror observation, practice	75	22	46	11	50	11	24	4	42	11	51	11
Imitation	58	29	22	13	40	16	34	17	30	11	32	13
Phonetic placement	50	35	8	3	32	16	18	7	32	16	30	17
Moto-kinesthetic method	15	35	5	5	10	20	6	7	10	16	11	24

TABLE 6-8. Frequency of use of ten remedial procedures involving improvement of voice and speech production through drills and games in the treatment of six types of disorders. Values represent percentages of 749 clinicians. O = Often; S = Sometimes.

Procedure	*Type of Disorder*											
	Articulation		*Stuttering*		*Delayed Speech*		*Voice Problems*		*Hard of Hearing*		*Organic Problems*	
	O	*S*	*O*	*S*	*O*	*S*	*O*	*S*	*O*	*S*	*O*	*S*
Practice with isolated vowels	25	36	7	6	17	20	16	27	14	17	15	21
Nonsense syllables and drills	52	33	9	4	34	20	20	8	18	9	26	15
Sound drills (words, sentences)	66	27	17	4	41	11	29	11	34	11	38	14
Tongue twisters	8	38	2	9	4	7	3	6	2	5	3	7
Speech sound games	75	19	21	4	58	13	30	6	42	11	45	11
Unit situations using words and phrases (lesson on animals, history, etc.)	23	32	13	16	16	16	13	12	18	18	14	14
Simultaneous talking, writing	6	16	4	23	2	5	1	4	2	4	3	9
Phonation exercises, drills	30	28	13	9	21	12	26	31	18	12	20	19
Rate drills	3	15	3	13	1	4	2	11	1	4	2	6
Speech rhythm exercises, drills	30	25	20	25	15	12	15	16	12	10	14	14

TABLE 6-9. Frequency of use of four remedial procedures making use of audio-visual aids in the treatment of six types of disorders. Values represent percentages of 749 clinicians. O = Often; S = Sometimes.

Procedure	*Type of Disorder*											
	Articulation		*Stuttering*		*Delayed Speech*		*Voice Problems*		*Hard of Hearing*		*Organic Problems*	
	O	*S*	*O*	*S*	*O*	*S*	*O*	*S*	*O*	*S*	*O*	*S*
Commercial speech records	8	38	2	7	5	25	3	11	4	16	3	14
Motion pictures, film strips	5	30	3	11	4	17	2	9	3	13	3	13
Tape recordings	48	41	42	34	34	26	42	33	28	19	35	25
Voice recordings	22	29	18	19	15	16	20	29	14	15	16	18

TABLE 6-10. Frequency of use of nine remedial procedures aimed at improving function of organs related to speech functions in the treatment of six types of disorders. Values represent percentages of 749 clinicians. O = Often; S = Sometimes.

Procedure	Type of Disorder											
	Articulation		*Stuttering*		*Delayed Speech*		*Voice Problems*		*Hard of Hearing*		*Organic Problems*	
	O	*S*	*O*	*S*	*O*	*S*	*O*	*S*	*O*	*S*	*O*	*S*
Breathing exercises, drills	16	17	20	24	10	6	24	35	6	4	20	28
Throat muscle exercises, drills	4	9	3	7	3	3	5	18	3	3	6	19
Lip, tongue, jaw exercises	43	37	13	4	31	20	21	11	17	9	31	28
Soft palate exercises, drills	10	19	2	2	5	9	9	24	5	4	18	43
Manipulation of speech structures	18	41	5	4	13	21	9	9	8	14	13	32
Rhythmic training of paired muscles	3	8	4	9	2	5	2	4	2	2	4	13
Use of rhythm instruments	1	10	1	10	2	8	1	6	2	10	1	9
Relaxation games, activities	31	30	33	36	25	24	25	23	20	11	24	23
Establishing unilaterality	2	3	2	12	2	4	1	1	0	1	2	5

TABLE 6-11. Frequency of use of seven remedial procedures involving individual or group speech performance in the treatment of six types of disorders. Values represent percentages of 749 clinicians. O = Often; S = Sometimes.

Procedure	Type of Disorder											
	Articulation		*Stuttering*		*Delayed Speech*		*Voice Problems*		*Hard of Hearing*		*Organic Problems*	
	O	*S*	*O*	*S*	*O*	*S*	*O*	*S*	*O*	*S*	*O*	*S*
Pupil-dictated stories	13	42	11	27	7	20	6	16	7	13	7	16
Oral reading alone	42	44	34	35	19	13	29	30	21	17	23	20
Unison oral reading	9	33	12	36	4	12	7	19	4	8	4	11
Choral reading	21	34	19	34	9	10	16	24	8	7	9	10
Group singing	7	22	5	19	5	13	4	14	4	4	3	9
Telephone drills	6	22	8	36	4	12	3	15	3	10	3	12
Creative dramatics, puppetry, role playing	23	44	22	42	18	29	15	22	11	13	12	17

Table 6-12. Frequency of use of eight remedial procedures involving release of feeling and alteration of attitude in the treatment of six types of disorders. Values represent percentages of 749 clinicians. O = Often; S = Sometimes.

Procedure	*Type of Disorder*											
	Articulation		*Stuttering*		*Delayed Speech*		*Voice Problems*		*Hard of Hearing*		*Organic Problems*	
	O	*S*	*O*	*S*	*O*	*S*	*O*	*S*	*O*	*S*	*O*	*S*
Psychotherapy	9	12	13	26	8	10	9	11	8	9	8	11
Directive counseling	21	22	30	40	14	12	18	18	16	19	15	17
Non-directive counseling	16	23	23	44	11	15	13	18	13	15	11	16
Group discussion	43	28	45	36	22	8	29	17	10	7	24	9
Advertising one's problem	5	14	13	41	1	2	2	5	5	11	3	7
Modified play, release therapy	19	25	22	37	18	31	12	13	10	10	11	16
Autobiography	3	11	10	52	2	5	4	12	3	6	3	7
Bibliotherapy	2	7	2	15	1	2	1	4	1	5	1	6

Table 6-13. Frequency of use of seven miscellaneous remedial procedures in the treatment of six types of disorders. Values represent percentages of 749 clinicians. O = Often; S = Sometimes.

Procedure	*Type of Disorder*											
	Articulation		*Stuttering*		*Delayed Speech*		*Voice Problems*		*Hard of Hearing*		*Organic Problems*	
	O	S	O	S	O	S	O	S	O	S	O	S
Babbling	8	23	2	5	9	32	2	4	3	6	4	13
Voiceless speech games, activities	4	17	3	10	3	10	2	7	9	20	2	8
Whispered voice, phantom lip movements	6	22	3	13	4	12	3	12	12	28	3	11
Eye contact	24	11	38	27	16	5	16	6	20	10	16	7
Negative practice	19	38	11	31	7	11	8	14	4	6	8	10
Penalizing the error	11	32	3	7	4	9	3	8	3	6	4	8
Use of checking and rating devices	25	25	22	24	12	9	14	11	10	7	13	8

difficulty with articulation. It is also surprising that 44% report that they never use imitation in helping cases of delayed speech.

The use of a second group of ten remedial procedures, these involving drills and games aimed at improvement of production of voice, sounds, syllables, words, and longer units, is presented in Table 6-8. Comparison of the percentages indicates the relatively greater use of games as vehicles for teaching speech sounds, etc., than of drills. Tongue twisters are obviously not generally considered acceptable means of improving speech, although 46% of clinicians report their use at least sometimes in working on articulation problems. Emphasis on the correct production of speech sounds is surprisingly great in the area of stuttering therapy, as is emphasis upon rate of speech.

Related to the two foregoing groups of procedures are four which are presented in Table 6-9. These procedures involve the use of audio-visual aids by means of which is increased the child's awareness of how speech and voice sound and how they are produced, or specifically of how his own speech and voice sound. The meaning of some of the percentages is unclear because of the lack of definition of 'voice recordings' as differentiated from 'tape recordings' (the questionnaire presented no definitions of any of the procedures). The relatively infrequent use of commercial records, motion pictures, and film strips is probably a reflection of the relative scarcity of materials which would be suitable for use in the situations in which the public school clinician finds himself. Tape recordings of the children's speech are made with relatively high frequency, especially in the case of articulation, voice, and stuttering problems; the fact that they are not used with even higher frequency may be the result of budget limitations and the cost of equipment.

In Table 6-10 are presented data concerning the frequency of use of nine procedures which bear on the adequacy of function of organs related to speech functions. A shift of emphasis over the years is evident in the present low percentage of clinicians concerned with establishing unilaterality in working with stuttering and the other disorders. Considerable preoccupation with the function of the breathing and oral mechanism is still apparent in the treatment of stuttering. The emphasis upon lip, tongue, and jaw exercises in treating articulation problems suggests that many clinicians apparently approach functional difficulties as though a basic physical inadequacy underlay them.

A series of procedures involving the child's performance of some speech activity individually or in a group is presented in Table 6-11. Oral reading by the child alone is used more frequently than the other procedures, group singing least frequently. Although stuttering children frequently indicate fear of using the telephone, 56% of the clinicians indicate that they never use telephone drills.

A group of eight procedures which have as their goals release of feeling, re-evaluation of one's problems, and change of attitude is reviewed in Table 6-12. It can be seen that all of these procedures are used to a greater extent in work with stuttering children than in work with any of the other types of disorders. Group discussion is rather commonly used in all types of disorders, however. There may well have been confusion concerning the procedure called 'advertising one's problem': to some clinicians it means acknowledging that one has a problem and reducing one's fears of it by discussing it openly, while to others it means simply identifying one's problem and being able to state what one is working on. Another confusion in terminology probably exists concerning 'psychotherapy,' which, like all the other procedures, went undefined; clinicians were more ready to state that they do 'counseling' than they were to claim that they do 'psychotherapy.' The percentages who state that they never do either are surprisingly high.

Table 6-13 presents eight miscellaneous remedial procedures not included in any of the above groupings. Babbling is an infrequently used technique, even in cases of delayed speech. Rather surprisingly low percentages of clinicians give attention to eye contact in therapy. Procedures involving voluntary production of the error or special penalty of the error are not in general use.

Some clinicians have been sufficiently concerned about remedial procedures to have engaged in research concerning them. Twenty-one per cent of 757 clinicians responding indicate that they have done research on comparison or development of remedial techniques.

Parent Guidance

The opinions of clinicians concerning the desirability of establishing personal contact with parents of children receiving remedial speech work have already been alluded to in Chapters II and III. Forty per cent of 705 clinicians responding indicate that contacts should be established with parents of all children receiving help, while another 46% feel that contacts should be established with the parents of most children. Only 12% prefer to restrict contact to the parents of only the most severely handicapped.

TABLE 6-14. Frequency with which clinicians report the use of 'parent guidance' in treating six types of disorders. Values represent percentages of 749 clinicians.

Type of Disorder	*Frequency of Use*		
	Often	*Sometimes*	*Never*
Articulation	59	29	12
Stuttering	59	30	11
Delayed speech	54	24	23
Voice problems	47	18	35
Hard of hearing	50	20	30
Organic problems	49	20	31

Table 6-14 and Figure 6-2 indicate the frequency with which 749 clinicians report the use of parent guidance as a procedure in treating each of six types of disorders. It is surprising that one fourth or more of clinicians state that they never counsel with parents of children who are delayed in speech, hard of hearing, or organically impaired.

Results of Interviews with Clinicians

Practicing clinicians were interviewed and asked to discuss a number of matters pertaining to remedial procedures which were not covered in the questionnaire. Only a small sample of their responses can be reported.

Basic Philosophy. As clinicians see it, their purpose is to help the child who has a speech problem understand his limitations, recognize his potentialities, and achieve the best oral communication possible for him. To accomplish

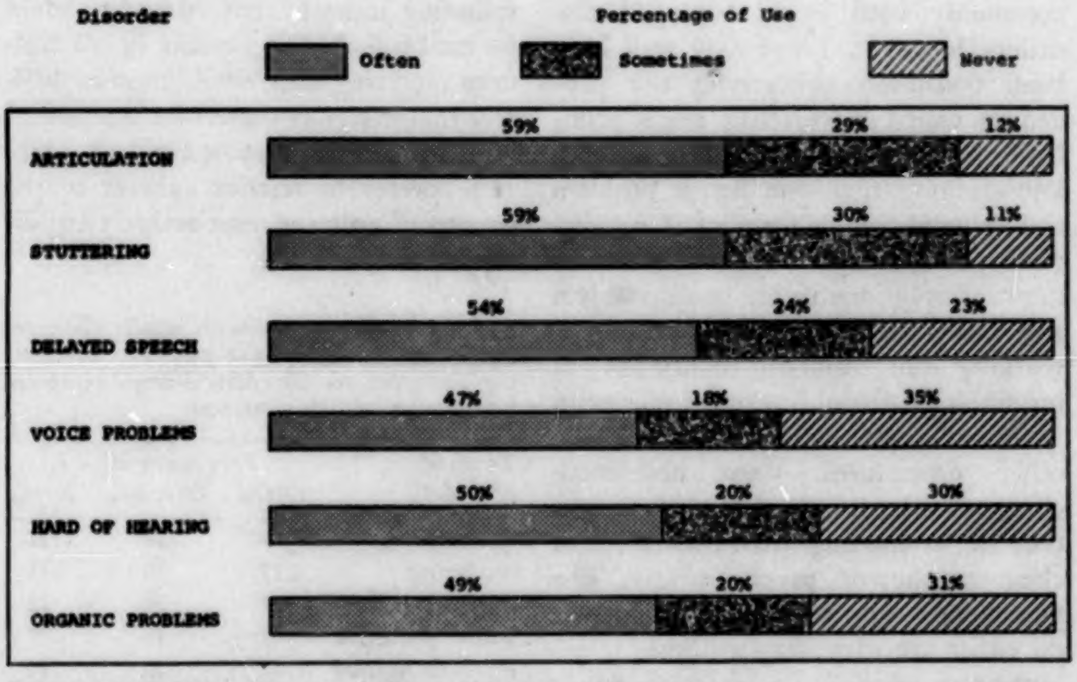


FIGURE 6-2. Relative frequency of use of parent guidance in treating six types of disorders as reported by clinicians in nationwide sample (N = 749).

these goals the clinician knows he cannot confine his attention to the child's speech deviations but must view the child as a person in an environment and be concerned with each thing that relates to the cause and maintenance of the speech problem.

The inter-personal relationship which characterizes remedial speech and hearing work demands that the clinician be honest, direct, and always aware of the individual nature of each problem. He finds it appropriate, then, to have an eclectic approach to theories and therapeutic methods and to use those most appropriate for the individual child.

Common Problems. Clinicians were asked to name their greatest problem relative to remedial procedures. A variety of problems were listed, some peculiar to the individual circumstances of given clinicians, some more general and common to most clinicians.

The clinician working in a rural area finds traveling a problem. 'Although traveling time is cut down to a minimum, visiting five or six schools in one day takes up valuable therapy time.' But clinicians in all situations feel pressed for time; some feel that record keeping and report preparation take time they would like to devote to therapy; some would like to devote more time to individual therapy with children who badly need it, but they state that their excessively large caseload prevents their scheduling this individual work.

Many clinicians express concern about ways in which to convey to others the importance of speech correction: to help administrators, teachers, and parents see the need certain pupils have for better speech; to motivate children to use the offered help and to carry over into life situations what they learn in speech correction; to inspire pupils to have a desire to achieve up to their potential. Clinicians search for materials and techniques that will appeal to pupils of varying social and emotional levels. They are constantly seeking ways to improve the effectiveness of their sessions—'to create an air of importance and "business" in speech class while not allowing tension, anxiety, or embarrassment to permeate.'

Then there is the chronic need for adequate space. As was reported in Chapter II, fully half the clinicians questioned feel that their therapy rooms are inadequate, and the reports of clinicians in interviews simply dramatize the need for appropriate space where clinicians can store their equipment, feel comfortable, and achieve satisfactory clinicial relationships and therapeutic results. Some clinicians gratefully report the provision of speech rooms in new school buildings.

Choice of Procedures. Some clinicians report that state and local restrictions limit some of their activities (for example, performing oral speech mechanism examinations, using tongue depressors, etc.). But most clinicians feel that they are quite unlimited in their choice of procedures.

Clinicians indicate that research studies and tradition largely influence their choice of remedial procedures. Although they acknowledge that the training they received importantly influences their choice of methods, they feel that it does not prejudice them against examining other approaches to the problems they work with.

Most Helpful Books. Following are the 25 publications mentioned by clinicians interviewed as being most helpful to them in the area of remedial procedures. They are presented in order of frequency of mention, the most frequently mentioned being presented first.

1. Schoolfield, Lucille D., *Better Speech and Better Reading*. Boston: Expression, 1937.
2. Van Riper, C., *Speech Correction: Principles and Methods* (3rd ed.). New York: Prentice-Hall, 1954.
3. Bryngelson, B., Chapman, Myfanwy E., and Hansen, Orvetta K., *Know Yourself: A Workbook for Those Who Stutter*. Minneapolis: Burgess, 1944.
4. Scott, Louise B., and Thompson, J. J., *Talking Time*. St. Louis: Webster, 1951.
5. Fairbanks G., *Voice and Articulation Drillbook*. New York: Harper, 1940. (A second edition was published in 1960.)
6. Travis, L. E. (ed.), *Handbook of Speech Pathology*. New York: Appleton-Century-Crofts, 1957.
7. West, R., Ansberry, M., and Carr, Anna, *The Rehabilitation of Speech* (3rd ed.). New York: Harper, 1957.
8. Johnson, W., Brown, S. F., Curtis, J. F., Edney, C. W., and Keaster, Jacqueline, *Speech Handicapped School Children* (rev. ed.). New York: Harper, 1956.
9. Nemoy, Elizabeth McG., and Davis, Serena F., *The Correction of Defective Consonant Sounds* (2nd ed.). Boston: Expression, 1945.
10. Manser, Ruth, *Speech Correction on the Contract Plan* (3rd ed.). New York: Prentice-Hall, 1951.
11. Chapman, Myfanwy E., *Self Inventory* (3rd ed.). Minneapolis: Burgess, 1959.
12. Berry, Mildred F., and Eisenson, J., *Speech Disorders: Principles and Practices of Therapy*. New York: Appleton-Century-Crofts, 1956.
13. Scott, Louise B., and Thompson, J. J., *Speech Ways*. St. Louis: Webster, 1955.
14. McCausland, Margaret, Miller, Marie B., and Okie, Isabel, *Speech Through Pictures*. Boston: Expression, 1947.
15. *My Speech Book* (Curriculum Bull. No. 86, 3d ed.). Kansas City, Mo.: Public Schools of Kansas City, 1960.
16. O'Connor, B. (ed.), *Better Homes and Gardens Story Book*. Des Moines: Meredith, 1950.

17. Nemoy, Elizabeth McG., *Speech Correction through Story-telling Units.* Magnolia, Mass.: Expression, 1954.

18. Brigance, W. N., and Henderson, Florence, *A Drill Manual for Improving Speech* (2nd ed.). Chicago: Lippincott, 1945.

19. Backus, Ollie, and Beasley, Jane, *Speech Therapy with Children.* Boston: Houghton Mifflin, 1951.

20. Van Riper, C., and Irwin, J. V., *Voice and Articulation.* New York: Prentice-Hall, 1958.

21. Johnson, W., Darley, F. L., and Spriestersbach, D. C., *Diagnostic Manual in Speech Correction.* New York: Harper, 1952.

22. Van Riper, C., and Butler, Katherine G., *Speech in the Elementary Classroom.* New York: Harper, 1955.

23. Eisenson, J. (ed.), *Stuttering: A Symposium.* New York: Harper, 1958.

24. Johnson, W. (ed.), *Stuttering in Children and Adults.* Minneapolis: Univ. of Minnesota Press, 1955.

25. Rogers, Carl R. *Client-centered Therapy.* Boston: Houghton Mifflin, 1951.

Discussion

Problems in conducting any study of current practices in remedial speech and hearing programs result from ambiguities of terminology and individual 'twists' given to methods bearing traditional names. More incisive answers could be provided to questions about ongoing therapy if in the asking of the questions terms could be adequately clarified and agreed-upon definitions could be adhered to in the questioning of each informant. In the absence of such a rigorous procedure, one's understanding of how clinicians are using 'psychotherapy,' 'role playing,' 'group discussion,' 'parent guidance,' 'group therapy,' and other procedures must remain somewhat limited.

There remain unanswered questions about the relationship between the clinicians' use of given procedures and their exposure to and indoctrination in them during training. In a future study it would be of interest to determine whether each of a battery of remedial procedures is merely mentioned, explained in detail, or explained in detail and demonstrated in clinical practicum. A more exhaustive list of procedures might well be developed for such an investigation. It is quite possible that clinicians use a limited number of procedures because they have not had adequate preparation in the use of many approaches. It is possible, too, that limitations of space, equipment, and time restrict the use of certain procedures.

Personnel involved in training programs will find interesting implications in the data presented. They will want to consider whether they are giving appropriate emphasis to those procedures which are widely used and found most helpful. Are they helping their students apply given procedures with discrimination to various cases and types of disorders? Are they pointing out and demonstrating the general applicability of certain procedures to various types of disorders which have common characteristics? Are they teaching a wide enough variety of approaches or appropriate modifications of given approaches to suit the spectrum of cases the clinician will meet? Are they inculcating those attitudes which will make the clinician curious about unfamiliar approaches, skeptical of traditional 'standard' procedures, inventive, ingenious, discriminating, eager to subject a procedure to research scrutiny, willing to accept the new or the old if evidence warrants its acceptance?

Summary

Information concerning current practices in the application of remedial procedures was gathered by questionnaire and interview of clinicians. Clinicians devote 65% of their time to therapy, over 80% of their therapy time being spent with articulation cases. Most cases (especially those with articulation and stuttering problems) are worked with in groups of four or five, the majority of clinicians preferring homogeneous to heterogeneous groups. About one-third of the children receiving help are dismissed annually as no longer requiring therapy.

Clinicians use many kinds of remedial procedures in their work, most procedures being used in the treatment of several kinds of disorders. The largest number of generally applicable procedures is reported in connection with the disorder of articulation, other types of disorders apparently requiring the selection and application of procedures on a more individual basis. Analysis of the patterns of response of clinicians suggests that there are no strong therapeutic schools of thought in the management of articulation problems and stuttering; clinicians tend to be eclectic and develop favorite procedures selected from among a 'standard' repertory. Precise answers to questions regarding current remedial practices will require a more precisely defined system of nomenclature than was used in the present study.

The majority of clinicians define their therapy efforts so as to include parent guidance. The most commonly reported problems in remedial work relate to excessive caseloads, space and time limitations, and motivation of children, their parents, and their teachers.

References

1. Kaiser, H. F., Computer program for varimax rotation in factor analysis. *Educ. psychol. Measurement*, 19, 1959, 413-420.
2. Kaiser, H. F., The varimax criterion for analytic rotation in factor analysis. *Psychometrika*, 33, 1958, 187-200.

VII. Speech Improvement

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School personnel and parents are becoming increasingly aware of the need for all children—those with 'normal' speech and those gifted with speech abilities as well as children with speech and hearing problems—to develop the ability to communicate their ideas effectively in acceptable speech, voice, and language patterns. Increased interest in helping children with minor speech and voice problems has led to increased referral to speech clinicians, who have found it necessary to work with excessive numbers of children. Many of these young children have the kind of speech and voice characteristics that may be improved through instruction in the classroom if teachers have guidance from speech clinicians.

As a result of these recognized needs, a number of classroom teachers and speech clinicians have begun instruction in speech improvement as part of regular classroom activities. Speech improvement has grown somewhat as the proverbial Topsy, and there has apparently been no published statement reflecting general agreement on its purpose, scope, and relation to other phases of the curriculum. Before Work Group V could set out to secure information about the status of speech improvement, therefore, it had to agree on a definition of the term:

> For the purposes of this study speech improvement takes place in the classroom. It consists of systematic instruction in oral communication which has as its purpose the development of articulation, voice, and language abilities that enable all children to communicate their ideas effectively. Speech improvement is not concerned with the work of the speech clinician with speech- and hearing-handicapped children outside of the regular classroom.

It was hoped that information obtained through the study would show how extensively speech improvement is taught at both the elementary and secondary levels and would indicate to what extent there is agreement with regard to philosophy, organizational

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procedures, curriculum development, and instructional practices. Thus, evident strengths and trends might serve as a guide for school administrators beginning speech improvement programs or desiring to improve current activities.

Review of Literature

In connection with the activities of Work Group IX (Research), Lysaght (*1*) abstracted 215 books and articles dealing with speech improvement published since January 1, 1946. On the basis of her review of literature she drew the following conclusions:

> The major portion of the literature dealing with speech improvement suggested trends and problems in the objectives, activities, and methods of teaching speech in the regular classroom. Some of the articles were of a general nature, stating the need for good speech. . . . Articles are increasing in number and do provide specific help for the teacher. . . . The articles are being published in a variety of periodicals so that all educational personnel, that is, superintendents, supervisors, specialists, principals, and teachers are becoming aware of the need for speech improvement.
>
> Speech improvement programs that have been initiated and carried on for a number of years are proving to be beneficial to the general speech of the total population and have reduced in numbers the minor speech problems.

Although there is information available on some phases of speech improvement, there is a paucity of data regarding organization and supervision of the program, preparation of personnel, and evaluative criteria. The following three textbooks provide practical suggestions for speech personnel and classroom teachers conducting speech improvement:

PRONOVOST, WILBERT, *Teaching of Speaking and Listening in the Elementary School.* New York: Longmans, Green, 1959. This guide for the teacher utilizes existing speaking and listening activities in oral communication based on current subject matter. The extensive bibliographies provide good sources for further investigation.

OGILVIE, MARDEL, *Speech in the Elementary School.* New York: McGraw-Hill, 1954. The author suggests ways to promote effective communication in the classroom, indicates speaking activities that are part of language arts, and notes the role which the classroom teacher plays in improving the child's speech.

SCOTT, LOUISE B., and THOMPSON, J. J., *Talking Time.* St. Louis: Webster, 1951. This book provides exercises, practice materials, jingles, and game experiences to strengthen good speech habits.

Plans and Procedures

Members of the Work Group committee prepared a questionnaire to be directed to teachers of speech improvement, questions to be included in the questionnaire to be sent nationwide to supervisors of speech and hearing services, and questions to be included in the questionnaire to be sent nationwide to speech and hearing clinicians. Data obtained through the questionnaire devoted to speech improvement will be discussed in most instances without breakdown by geographical region since all regions were not equally, proportionally, nor randomly represented.

The major part of the study was conducted in nine school systems known to have well-organized speech improvement programs that had, for the most part, been in operation for some time. These programs have been recognized for their contributions to speech education and were believed to represent a cross section of programs. Participation was by invitation. School adminis-

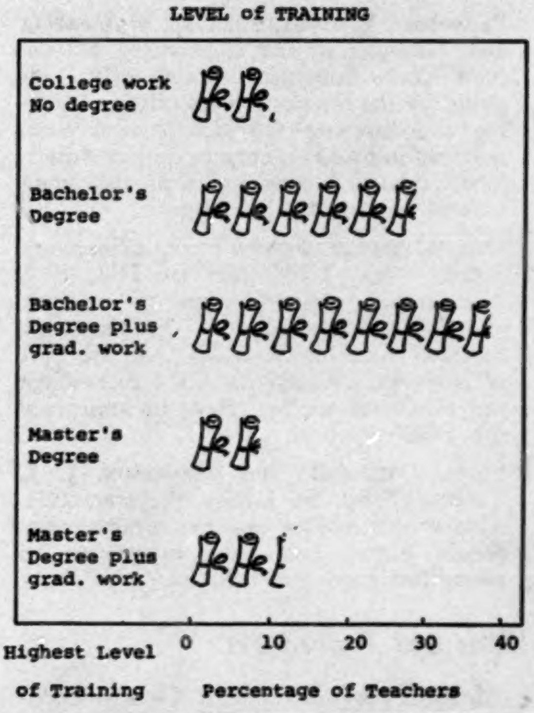

FIGURE 7-1. Level of professional training of teachers of speech improvement included in sample (N = 245).

trators in the following communities accepted the invitation for their school personnel to participate in the study: Arlington County, Virginia; Brea, California; Des Moines, Iowa; Hartford, Connecticut; Hingham, Massachusetts; New York, New York; Wauwatosa, Wisconsin; Wichita, Kansas; and Youngstown, Ohio.

Not all persons associated with these programs were questioned, but 245 persons completed questionnaires. These persons were teaching speech improvement, were directing or supervising the programs, or were rendering consultative services. Thus they were able to provide factual information based on personal experiences in public school speech improvement activities.

The People Supplying Information

Teachers returning questionnaires appear to be well qualified professionally, as Figure 7-1 shows. Eighty-eight per cent of the respondents hold at least a baccalaureate degree, 21% at least a master's degree.

The teaching of speech improvement is not restricted to any one age or experience level. Instruction is provided by younger and less experienced persons as well as by more mature, experienced teachers. More than 50% of the teachers responding are over 40 years old, but 31% are between the ages of 20 and 30. Over 30% have taught more than ten years, while 8% are beginning teachers. Their experience in teaching speech improvement, however, is not comparable to that in regular school work: only 3% have taught speech improvement more than ten years, and only 4% of those having taught from four to 10 years also have participated in speech improvement each year.

These teachers earn good salaries: approximately 65% receive salaries ranging from $5000 to $7000 or more. Most of these teachers support their professional associations, as Figure 7-2 shows.

When asked to describe their position, 4% said they are 'speech improvement teachers,' 11% 'speech and hearing therapists,' and 80% 'classroom teachers.' In addition to teaching speech improvement, 79% teach all subjects either at the kindergarten or elementary level; 1% teach English, 1% drama, 3% speech, and 10% speech and hearing. Thus it would seem that the major responsibility for instruction in speech improvement in these nine

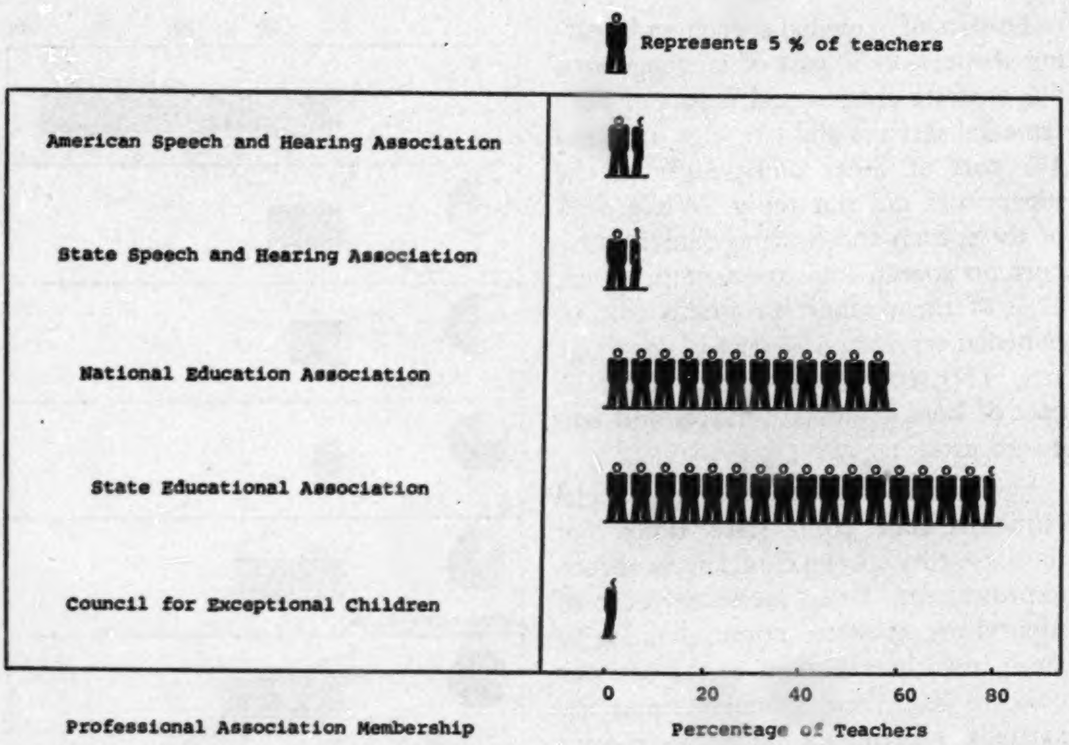

FIGURE 7-2. Membership in professional associations of 245 teachers of speech improvement.

school systems rests with classroom teachers. As could be expected, a substantial number of these teachers have had more complete training and experience in education than in any other area (49%), but 7% have had major preparation in speech arts, 19% in English, and 12% in speech and hearing therapy. In reply to the question. 'In your opinion, which of these fields would be the best preparation for teachers of speech improvement?' about one-third thought speech and hearing therapy the best preparation, but 15% preferred speech arts. It is significant, however, that 47% did not reply. It may be that the teachers who failed to answer this question think that there is no one field that best prepares a person for teaching speech improvement.

Organization of the Program

The nine speech improvement programs studied do not follow any single administrative pattern although five of them are part of remedial speech and hearing services. One is a separate speech improvement program coordinated with remedial services; one is an independent speech improvement program; one is identified with language arts but speech clinicians direct the speech work; and one is organized as a two-year research study directed by remedial speech and hearing personnel.

Information obtained through questionnaires sent nationwide to persons in supervisory positions and to speech and hearing clinicians indicates similar patterns of organization. Thirty-five per cent of supervisors report programs to be part of remedial speech and hearing services, 21% part of language arts, 5% separate programs, 6% part of both remedial services and language arts, and 3% part of other units; 30% of the supervisors did not reply. While 61% of the speech and hearing clinicians report no speech improvement program, 22% of them report programs part of remedial services, 6% part of language arts, 4% separate programs, and 2% part of both remedial services and language arts.

Few school systems receive financial reimbursement from state funds for time spent by speech clinicians in speech improvement. Twenty-one per cent of supervisors at state, county, and city levels in various sections of the country indicate that their school systems are partially reimbursed, and 12% receive full reimbursement.

In seven of the nine school systems surveyed, the supervisor or director of speech improvement received her major preparation and experience in remedial speech and hearing. While the supervisors in the other two school systems had preparation in remedial speech and hearing, they had had additional preparation in speech arts, language arts, and speech improvement. No information is available concerning whether the supervisors believe their particular kind of preparation is that needed for directing and supervising a speech improvement program.

Although 63% of the teachers state that their speech improvement programs have been in operation for ten years or longer, the number of children participating is small in comparison with total school enrollments (see Figure 7-3). Thirty-eight per cent of teachers state that 10% or less of their total school population is enrolled in speech improvement classes. However, 13% state that more than 75% of their school population is enrolled, while 15% claim 100% enrollment.

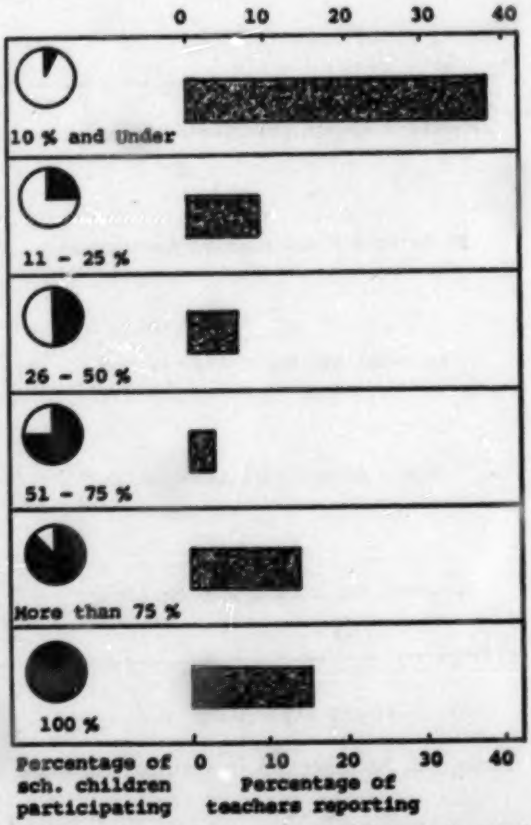

Figure 7-3. Percentages of children in total school population participating in speech improvement programs as reported by 245 teachers.

Instruction in speech improvement is concentrated in kindergarten and first and second grades: 45% of the teachers are teaching in kindergarten and grade one and 13% are teaching in grade two. The percentage of teachers drops to 7% in both grades three and four and to 6% in grades five and six, with 1% teaching in grade seven. (These data

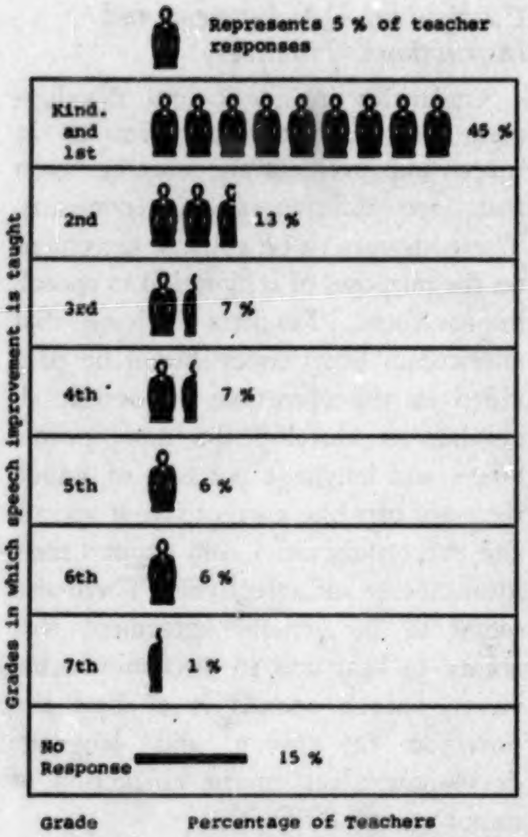

FIGURE 7-4. School grades in which speech improvement is conducted as reported by 245 teachers.

are summarized in Figure 7-4.) No report was received of instruction above the seventh grade, but it is known that speech improvement is taught at the secondary level in at least one school system; either the teachers were not sampled or the sampling was so small that it was not recorded in the machine analysis.

Data obtained from persons in supervisory positions and from speech and hearing clinicians countrywide also indicate that instruction is concentrated in kindergarten and primary grades. Instruction to a limited extent was reported at the secondary level, however, as 9% of clinicians and 12% of supervisors nationwide mentioned that their programs extend from primary through secondary levels.

The amount of time spent on speech improvement is limited. Time spent by teachers ranges from amounts of up to 1½ hours per week spent by 45% of the teachers to the more than 8.5 hours each week spent by 2% of the teachers. Only 9% of teachers spend as much as 3.5 hours a week in speech improvement, as shown in Figure 7-5. The number of periods each teacher devotes to speech improvement each week varies from one period per week (20%) to five periods per week (24%). It is to be noted, however, that 35% of the teachers did not reply. Class periods

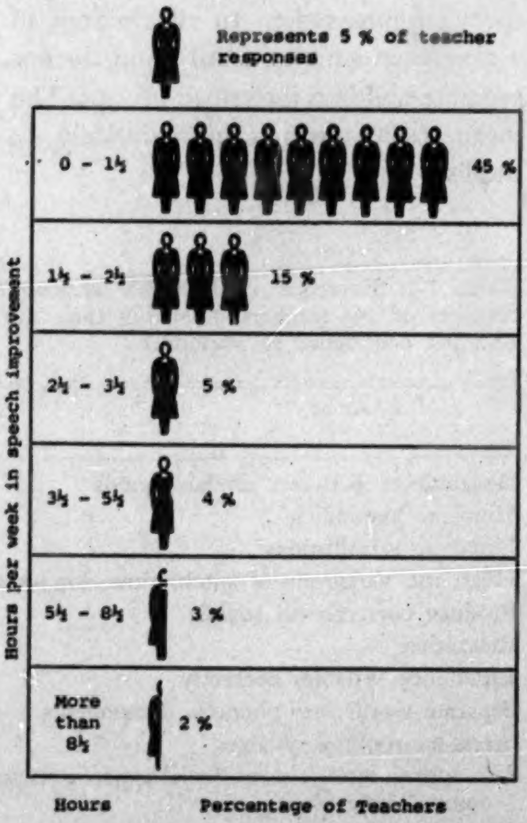

FIGURE 7-5. Number of hours spent per week in the teaching of speech improvement classes as reported by 245 teachers.

vary in length from a few minutes up to about an hour. Seventeen per cent of the teachers use periods up to 14 minutes in length, 43% periods ranging from 15 to 24 minutes, 14% periods ranging from 25 to 34 minutes, and 6% longer periods. However, 20% of the teachers did not reply. Teachers appeared to have difficulty in giving information about the amount of time spent on speech improvement. Kindergarten and primary teachers may have found it difficult to respond since speech improvement may be coordinated with instruction in reading readiness, phonics, and developmental reading.

It would seem that teachers teach speech improvement to all children in a classroom simultaneously and do not separate children into small groups. The mean size of class is approximately 22 pupils.

Curriculum Development and Instructional Practices

Similarities in curriculum development and instructional practices in speech improvement are more common than are differences and contrasts. There appears to be general agreement on the purposes of instruction in speech improvement. Teachers indicate that curriculum experiences should be provided in the classroom to permit all children to develop the best speech, voice, and language patterns of which they are capable, correct minor speech and voice difficulties, and express their ideas clearly and effectively. There also seems to be general agreement that ability to hear and to discriminate between speech sounds is of first importance in speech and language development and in the correction of minor speech difficulties.

Twelve teaching techniques or 'ex-

TABLE 7-1. 'Exercises' used in the teaching of speech improvement. Values represent percentages of 245 teachers indicating their use of the exercise with the indicated frequency. (Six per cent failed to respond.)

Exercise	*Frequency of Use* *Often*	*Occasionally*	*Never*
Discriminate between similar sounds	72	16	7
Eliminate 'mumbling'	68	22	4
Eliminate substitutions	53	23	19
Hear, use variations of pitch, time, loudness	44	33	17
Produce correctly all sounds	74	15	6
Relaxation	41	37	17
Pronounce syllables correctly	60	22	12
Separate words into phonetic components	40	25	29
Stress appropriate syllables	39	28	28
Use appropriate gestures, facial expressions to communicate feeling, mood	50	29	15
Use International Phonetic Alphabet	11	6	77
Use tongue, lip, jaw exercises	40	25	29

TABLE 7-2. Speaking activities used in the teaching of speech improvement. Values represent percentages of 245 teachers indicating use of each activity with the frequency shown.

Activity	*Frequency of Use* *Often*	 *Occasionally*	 *Never*
Auditory training drills	58	23	16
Voice and articulation practice	44	35	19
Discussions and conversations	78	18	1
Dramatic presentations	35	57	5
Oral reading	67	10	20
Parliamentary procedure	10	17	70
Talks and reports	42	28	28

ercises' that may be used as methods in teaching speech improvement were listed in the questionnaire, and teachers were asked to tell whether they use them often or occasionally or do not use them. More than 90% of the teachers stated that they use these and only these techniques in teaching speech improvement; 2% of the teachers stated that they often use techniques in addition to these, and 1% use additional ones occasionally. The relative frequency of use of the various techniques is shown in Table 7-1.

It appears that the techniques used most commonly are designed to help children become aware of speech sounds, to teach them to discriminate between similar speech sounds, and to train them to produce speech sounds and pronounce words correctly. There is relatively little emphasis on the phonetic analysis of words and extremely limited teaching of the use of the International Phonetic Alphabet. Listening rather than the placement of articulators is stressed.

In addition to the 12 teaching techniques listed in Table 7-1, seven speaking activities that may be used as procedures in teaching speech improvement were listed and school personnel were asked to indicate to what extent they use each. Table 7-2 shows the relative frequency with which the teachers use each of these activities.

Two of these activities—auditory training drills and voice and articulation practice and drills—may be used in teaching sound discrimination and the production of speech sounds. There is a lack of agreement in findings relative to the use of sound discrimination techniques as reported in Table 7-1 and auditory training drills as reported in Table 7-2. The differences in percentages may be the result of individual interpretations of the word 'drills.' These differences may imply that some techniques are used formally and others informally. In the case of sound discrimination, for example, 72% of the teachers report that they often teach children to discriminate between similar speech sounds (Table 7-1) but only 58% of the teachers claim to use auditory training drills often (Table 7-2). Odd as it may seem, 7% of the teachers report no use of sound discrimination exercises but 16%

report no use of 'auditory training drills.' Responses concerning the use of voice and articulation practice and drills more nearly agreed with responses concerning the use of auditory training drills.

The remaining five speaking activities are closely allied to communication of ideas and are reported in the following order of preference for use as methods in teaching speech improvement: discussions and conversations, oral reading, talks and reports, dramatic presentations, and parliamentary procedure. The teachers indicate that they commonly use two additional types of activities with remarkable uniformity: dramatics, storytelling, and radio programs (84%) and choral speaking (83%).

Equipment and supplies commonly found in modern educational programs are used by teachers in speech improvement activities. Electronic equipment including tape recorders, radio, record players, projectors, television, and movies are used by 71% of the teachers. Speech games are used by 81% of the teachers, but special speech improvement books, speech improvement workbooks, and puppets are used by only 39%.

It was found that 35% of the teachers use lesson plans either suggested or prepared by their supervisors, but 23% use their own plans prepared and written in advance. However, 36% of the teachers report using only informal plans, which may represent little thought or planning.

Supervision of Program and In-service Training

Each program surveyed is the responsibility of a supervisor or director of speech improvement activities, but in some programs clinicians carry part of the responsibility for assistance to classroom teachers. Supervisory or consultatory assistance is received by 41% of the teachers from speech clinicians only, by 27% from supervisors only, and by 21% from both, while 9% of the teachers report assistance from neither. Fifty-three per cent of the teachers receive assistance in planning curriculum, and 69% report assistance with demonstrations in the classroom. While 58% of the teachers report assistance with coordinating speech improvement with regular curriculum, only 47% report such assistance in coordinating speech improvement with remedial speech and hearing. Forty-eight per cent of the teachers report help in preparing special programs and meetings. Likewise 56% report assistance in evaluating and improving speech improvement.

Since in some school systems speech clinicians work more closely with classroom teachers than do supervisors, replies concerning the work of the supervisor may not adequately reflect the extent of supervision. Also it is not known how many classroom teachers are able to work with a minimum of supervision. It would appear, however, that supervision in some areas of curriculum may not be adequate, especially in the coordination of speech improvement with remedial speech and hearing.

The principal means of in-service training is provided by the supervisor of speech improvement in the local schools. Although 69% of the teachers have demonstrations available to them, only 34% have workshops provided at the local level and only 30% have access to conferences in speech improvement at the regional and state level. However, 49% have in-service preparation available through college courses. If teachers of speech improvement are to benefit from methods, techniques, and materials currently in use, they must have available and take advantage of more adequate in-service training resources.

Extension of Speech Improvement

In the nine school systems surveyed 40% of the supervisors report plans for expansion of speech improvement. Likewise 33% of 141 supervisors of speech and hearing programs and 15% of 705 speech and hearing clinicians nationwide report similar plans.

Supervisors at the state, county, and local level nationwide encourage the extension of speech improvement programs by conducting workshops or conferences, serving as consultants, and supplying suitable materials. While 5% of the supervisors conduct workshops or conferences only, 7% serve as consultants, and 4% supply materials, 35% of the supervisors render all of these services. However, 23% of supervisors indicate that in no way do they encourage extension of speech improvement.

Measuring Effectiveness of Speech Improvement

The principal means of measuring the effectiveness of speech improvement is judgment—the judgment of supervisors, teachers, parents, and children. However, 29% of the speech improvement teachers use articulation tests and 16% use voice ratings. While 67% of the teachers depend upon their judgment together with that of their supervisors, 31% use the judgment of parents and 45% use the judgment of children in evaluating speech improvement.

Teachers of speech improvement are strongly convinced that speech improvement helps children not only to develop good speech, voice, and language patterns but also to correct minor speech and voice problems. They also believe that children are helped to organize their thoughts and to express them clearly and effectively. Their expressions of opinion are summarized in Table 7-3.

Persons in supervisory positions nationwide are not agreed on the extent to which speech improvement decreases the number of children requiring therapy. In no one section of the country did as many as 50% of the supervisors state

TABLE 7-3. Results of programs of speech improvement reported by 245 teachers of speech improvement. Values represent percentages of teachers responding as indicated to each of three questions.

Question	*Response*			
	Definitely Yes	*To a Limited Extent*	*No*	*Don't Know and No Response*
Does speech improvement help students develop good speech, voice, and language patterns?	67	23	0	10
Does it help students correct minor speech and voice problems?	64	24	3	9
Does it help students express ideas clearly?	57	31	2	10

TABLE 7-4. Results of programs of speech improvement reported by 141 supervisors and 705 speech clinicians. Values represent percentages of supervisors and teachers responding as indicated to the question, 'Has the speech improvement program in your system decreased the number of students requiring therapy?'

Respondents	*Yes*	*No*	*Don't Know*	*No Response or No Program*
Supervisors	23	9	38	30
Clinicians	61	3	13	23

that speech improvement has decreased the number. The responses of 141 supervisors are shown in Table 7-4.

Except for those on the West Coast, speech and hearing clinicians nationwide are more certain than are their supervisors that speech improvement has decreased the number of children requiring therapy. There was substantial agreement among clinicians in the Midwest, Southeast, and Southwest-Mountain-Hawaii regions (73%, 67%, and 71%, respectively, reporting decrease) while clinicians in the Northeast and on the West Coast were in agreement (48% and 44%, respectively, reporting decrease). Table 7-4 shows that of 705 clinicians across the nation 61% believe that speech improvement has decreased the number of children requiring therapy.

It is not known to what extent the replies of supervisors and clinicians nationwide are based on the results of standardized articulation tests and voice ratings. It could be that standardized test results are not available and that supervisors are more reluctant than clinicians to express an opinion. It is possible that clinicians base their replies, at least in part, on observation and on non-standardized test results used in instruction. It is also possible that in some instances clinicians may have worked more closely with children and classroom teachers than have supervisors and thus are more aware of the results of speech improvement programs.

The Clinician in Speech Improvement

It will be recalled that in the school systems surveyed 11% of the persons teaching speech improvement are speech and hearing clinicians. From data obtained it would seem that clinicians in these schools serve as both teachers and consultants. It will be recalled that the clinicians assist with classroom demonstrations, plan speech improvement curriculum, and coordinate speech improvement with both regular curriculum and the remedial speech and hearing program. Clinicians help to conduct workshops. They help in the preparation of special meetings and programs. They assist in the evaluation of speech improvement. It is not known to what extent clinicians do demonstration teaching with classroom teachers continuing speech improvement work between demonstrations, but since 80% of speech improvement personnel are classroom teachers, it can be assumed that classroom teachers do teach speech improvement, at least to some extent, between demonstrations.

TABLE 7-5. Opinions of clinicians and supervisors concerning the role clinicians should play in speech improvement programs. Values represent percentages of 141 supervisors and 705 clinicians responding in the ways indicated.

Respondents	*Recommended Role*			
	Consultant	*Supervisor*	*Teacher*	*No Participation*
Supervisors	53	17	20	8
Clinicians	49	11	22	12

Supervisors and speech and hearing clinicians nationwide were asked, 'What is the speech and hearing clinician's relationship to the speech improvement program?' Of the supervisors answering this question, 30% replied that the clinician teaches speech improvement, 15% replied that he supervises classroom teachers, and 18% replied that he consults with teachers. Speech and hearing clinicians who answered this question reported that 18% of them teach speech improvement classes, 10% supervise classroom teachers, while 4% do something 'other,' which may mean or include 'consulting' with teachers. The discrepancies between the replies of the two groups may have resulted from interpretation of the words 'teach,' 'supervise,' and 'consult.' Again, it is not known whether clinicians do all of the teaching with no follow-up by classroom teachers or whether theirs is demonstration teaching so that classroom teachers can continue instruction.

Supervisors and speech and hearing clinicians nationwide were also asked, 'In what capacity do you think speech and hearing clinicians should participate in the speech improvement programs in their school systems?' There is general agreement among supervisors and clinicians that clinicians should serve as consultants to teachers, but some supervisors and clinicians believe that clinicians should teach, as Table 7-5 indicates.

Persons in supervisory positions nationwide were questioned further about this matter. They are not in complete agreement as to whether speech improvement should be supervised or

TABLE 7-6. Replies (in percentages) of 141 supervisors to the question 'Do you think speech improvement should be supervised and/or taught by speech and hearing personnel?'

Region	*Teach Only*	*Supervise Only*	*Teach and Supervise*
Northeast	6	36	55
Midwest	16	52	30
Southeast	17	56	27
Southwest-Mountain-Hawaii	17	39	39
West Coast	26	17	52
Total	16	41	40

taught or both by speech and hearing personnel. Supervisors in no one section of the country believe that speech and hearing personnel should teach only, but a preponderance of them in the Midwest and Southeast believe that participation should consist of supervision while those in the Northeast and on the West Coast believe that personnel should both teach and supervise; persons in the Southwest-Mountain-Hawaii region were equally divided on the subject (see Table 7-6).

A Model Program

All classroom teachers are teachers of speech improvement. Speech improvement programs should provide the kinds of assistance classroom teachers need to help all children learn to organize their thoughts and express them effectively in the best speech, voice, and language of which they are capable. The following plan, based in part upon the above description of ongoing programs, is suggested as one means of accomplishing this purpose.

All children are carefully screened by speech and hearing personnel and records are kept on each child. Those children who indicate that they can respond to speech improvement techniques are not referred for remedial speech, although they may be later if they do not make expected progress.

When a program is being started, all elementary teachers are given in-service training covering a period of two to three years; the length of training is dependent upon the previous preparation and experience of the classroom teachers and the amount of time clinicians can devote to programs in the classroom. After the program is begun, in-service training is limited to teachers new to the system. In-service training includes a planned series of workshops and demonstrations held during the year either by the supervisor of speech improvement or by persons recognized for their leadership in the work. When possible, college courses in speech improvement are offered locally. Provision is made for teachers' attendance at regional and state conferences.

Speech improvement is not taught as a separate subject in any classroom from kindergarten through grade 12. Instead it is part of the regular curriculum in that it is integrated with subject matter areas and with school activities.

In the classroom during the in-service training period the clinician does demonstrations of speech improvement at least once a week to set a pattern for the classroom teacher to follow between demonstrations. Major emphasis is placed upon developmental and preventive aspects of speech, voice, and language, but attention is given to correction of minor speech and voice problems. Through conferences the clinician helps the teacher to integrate speech improvement with class and school activities, and she assists the teacher to conduct speaking activities as part of instruction. The clinician makes specific suggestions for helping children receiving remedial services to participate in speech improvement and to use newly acquired skills. The clinician assists the teacher to use standardized evaluative criteria as well as judgment in measuring the effectiveness of the work. With the period of in-service training completed, the classroom teacher assumes responsibility for speech improvement and the clinician serves as consultant.

Since parents can do much to help their young children develop speech, voice, and language abilities, an able clinician is assigned to work with parents of children in kindergarten and in grades one and two. Conferences begin with the initial visit of parent and child at school in preparation for the child's entering school. In larger school systems this clinician devotes full time to work with parents individually and in groups.

At the senior high school level speech improvement is integrated with work in fundamentals of speech, public speaking and debating, and dramatics and is correlated with academic subjects and with activities such as student government, class organizations, assembly programs, and clubs. In-service training and assistance are provided by the supervisor of speech improvement.

Summary and Conclusions

Information gathered by questionnaires from teachers of speech improvement indicates agreement that the purposes of speech improvement are to help children develop good speech, voice, and language abilities and to correct minor speech and voice problems. The majority of speech improvement programs are part of remedial services directed by speech and hearing personnel, but there are some programs affiliated with language arts and some which are independent and directed by speech improvement teachers. While 63% of teachers are working in speech improvement programs that have been in operation for ten years or longer, only a small percentage of the total school population is involved. Although speech improvement is taught from kindergarten through grade 12, instruction is concentrated in kindergarten and the primary grades.

In the speech improvement curriculum emphasis is placed upon speech sound discrimination. Children are taught to identify and to produce correctly all speech sounds. Efforts are made to help children correct minor speech and voice problems and to express their ideas clearly. All teachers use the same 12 basic teaching techniques or 'exercises,' and only 3% use others in addition to these. Teachers tend to use the same speaking activities as vehicles for speech improvement work. They also use record players, tape recorders, radio, television, movies, and speech games.

Many supervisors and clinicians conduct demonstrations and help teachers plan speech improvement and integrate it with regular curriculum and remedial services. They also aid classroom teachers in evaluating and improving instruction. In-service training consists chiefly of demonstrations and workshops by local supervisors, but college courses in speech improvement and regional and state conferences are reportedly accessible to approximately 50% of teachers.

Approximately 65% of persons teaching speech improvement have observed that speech improvement definitely has helped children develop good speech, voice, and language patterns and has helped them correct minor speech and voice problems; an additional 24% have observed such benefits to a limited extent, while 23% of supervisors and 61% of clinicians believe that speech improvement has decreased the number of children requiring therapy. Although much of the information on effectiveness of speech improvement is based on judgment, it would seem that speech improvement has reduced the number of children requiring therapy and thus reduced the case load of clinicians.

Since speech and hearing clinicians have carried much of the responsibility for speech improvement, it is recommended that the American Speech and Hearing Association give serious consideration to the area of speech improvement and decide whether it should be part of remedial services. If speech improvement logically belongs within the boundaries of remedial speech and hearing, ASHA should exert leadership in establishing standards for the organization and operation of programs and for the preparation of personnel.

Committee recommendations for the conduct of speech improvement programs follow:

a. Speech improvement should be part of the curriculum from kindergarten through grade 12.

b. Responsibility for organization and direction should be given either to speech and hearing personnel or to speech improvement teachers who would serve as consultants to classroom teachers.

c. The person who serves as consultant to classroom teachers should have strong preparation in remedial speech and hearing since he must discern when children are not making expected progress in speech improvement and consequently are candidates for clinical help. He should also be able to give assistance to classroom teachers in helping children receiving remedial services participate in speech improvement and use the skills learned in remedial speech and hearing.

d. The supervisor or a staff member should be assigned to work with parents of children in kindergarten and in grades one and two. He should help parents to understand the developmental aspects of speech, voice, and language and be aware of appropriate preventive management.

e. The person who works with classroom teachers in speech improvement should be given specific time in his schedule for this work.

f. Major responsibility for instruction in speech improvement should rest with the classroom teacher.

g. A well-planned in-service training program of workshops, demonstrations, and college courses extending over a period of two to three years should be provided each classroom teacher beginning work in speech improvement.

h. During the period of in-service training the person responsible for work with the classroom teacher should do demonstration teaching in the classroom and help the teacher to develop methods, techniques, and materials useful in integrating speech improvement with class and school activities.

i. When his in-service preparation is completed, the classroom teacher should be encouraged to seek assistance as he needs it.

Reference

1. Lysaght, Carol, An analysis of literature pertaining to speech improvement programs in the public schools. M.Ed. thesis, Boston Univ., 1960.

VIII. Professional Standards and Training

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The mission of Work Group VI was to investigate the status of professional standards for public school speech and hearing personnel as represented in state certification regulations and in college and university training programs. Three main areas were defined and studied by appointed subcommittees: (a) certification by states and by the American Speech and Hearing Association, (b) state licensing and its effect upon public school speech and hearing clinicians, and (c) curricula and clinical practice requirements provided by training institutions.

Data were obtained from questionnaires completed by 1462 practicing clinicians, 141 supervisors of state and local speech and hearing programs, and representatives of 168 training institutions. Additional information was supplied by 19 state supervisors of programs of service in speech and hearing (California, Colorado, Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Texas, and Wisconsin). Individual university and state programs were scrutinized in detail, but the present report does not present information gathered from these 'case studies.'

State Certification

First to be considered is the certification of public school speech and hearing clinicians by state departments of education. The usual practice is for the state agency to designate 'approved' colleges and universities within the state. The number of approved training institutions varies considerably from state to state: California has 14; Texas 13; Illinois 10; Michigan seven; Ohio seven; North Dakota, Iowa, and Colorado three each; Kentucky and Oregon two each; etc. An official of the institution customarily recommends to the state certifying agency for approval those students who have completed the required program. In California an accreditation committee visits each in-

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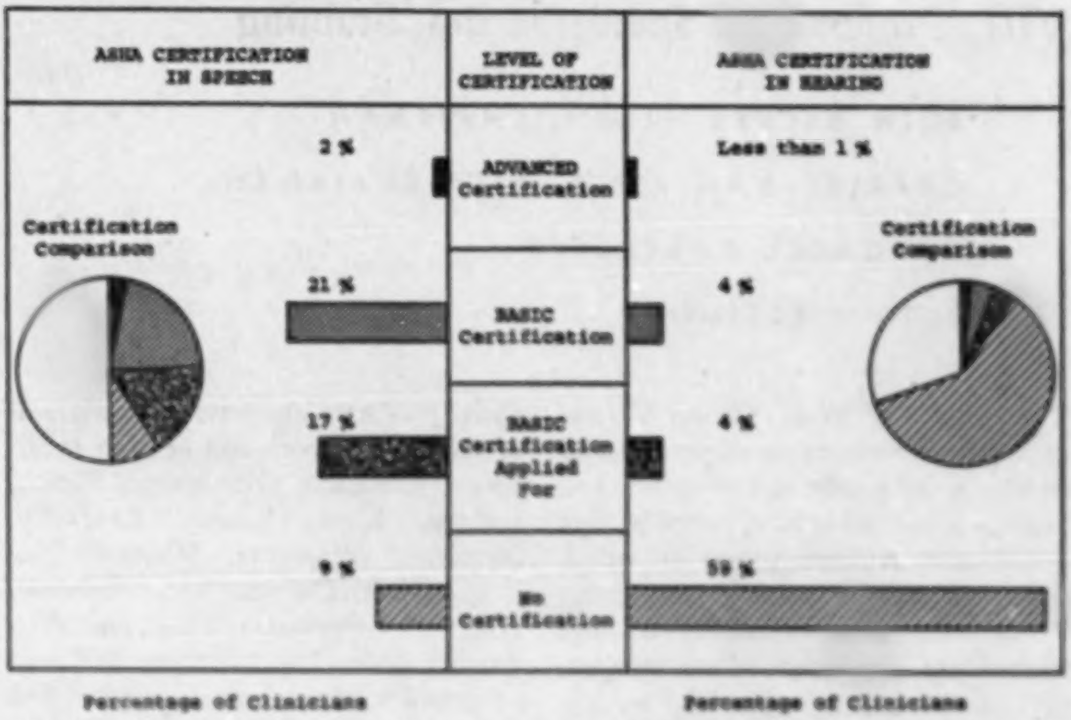

FIGURE 8-1. ASHA certification held by public school clinicians in nationwide sample (N = 705).

stitution and reports on the program of training for public school speech and hearing clinicians. This committee is composed of representatives of the State Department of Education, the Western College Association, the American Association of Colleges for Teacher Education, and the California Speech and Hearing Association.

Of the [illegible] supervisory personnel of speech and hearing programs who responded to questionnaires, 67% indicated that their state certification requirements are similar to those prescribed by the American Speech and Hearing Association for Basic Certification. The remainder indicated that requirements similar to those are desired.

A recent review of state certification in speech correction (*1*) indicates that 32 states (64%) now have certification requirements which approximate the requirements for the Basic Certificate in Speech of the American Speech and Hearing Association. This situation contrasts favorably with that in 1953 when only 15 states had requirements comparable to those for the Basic Certificate in Speech. State certification for work in hearing is usually embraced in the speech and hearing certificate if the hearing services are for children with minor hearing problems. In many instances, however, separate certification is required for teachers of the hard of hearing and the deaf.

With few exceptions, according to the reports of 19 state supervisors who were questioned separately, all speech and hearing clinicians within their states hold state certification in speech and hearing. However, information secured from a nationwide sample of 705 speech and hearing clinicians indicates that state certificates are held by only 46% of them. The belief that it is important for the speech and hearing clinician to have a teacher's certificate is held by 66% of the 705 clinicians and by 72% of 141 supervisors.

The ASHA Basic Certificate in Speech is held by 21% of the 705 clinicians responding while only 2% hold the Advanced Certificate in Speech. (An additional 17% report that they have applied for Basic Certification in Speech). Four per cent of the clinicians hold the ASHA Basic Certificate in Hearing, less than 1% the Advanced. (An additional 4% report that they have applied for Basic Certification in Hearing.) These data are summarized in Figure 8-1. Although only 40% of the clinicians held or had applied for some level of certification in speech by ASHA at the time they completed the questionnaire, 70% stated that their undergraduate and graduate training programs provided the requisites for Basic Certification in Speech. (Twelve per cent said their course work did not provide them with the requisites for Basic Certification; 13% did not know.)

Although only 7% of state and local supervisors report that ASHA membership and certification are a requirement for employment, 91% consider them desirable and encourage their attainment either before or after employment. Only 4% consider ASHA membership and certification unimportant for employment and do not encourage their attainment after employment.

Of the 19 state supervisors of speech and hearing programs who supplied additional information, 12 feel that the requirements for state certification are adequate. Four supervisors wish to raise requirements to coincide with ASHA requirements for the Basic Certificate; one would like to require the holding of the ASHA Advanced Certificate in Speech.

State supervisors prefer that their personnel have training in both speech and hearing, particularly when services are conducted on an itinerant basis. For work with the severely hard of hearing and the deaf, a special certificate requiring highly specialized training in the field of hearing is desired. One supervisor indicated that 'speech and hearing cannot be separated' and that there often are not enough hearing cases to keep the clinician busy in most school systems. Several state supervisors also indicated that it is impractical to separate speech and hearing services, particularly in rural areas.

State Licensing

The term 'certification' has been used to refer to regulations established by state departments of education to govern the employment of speech clinicians in the public schools. The term 'licensing' refers to regulations directed toward the control of clinicians working in other settings; it implies the administration of a qualifying examination by a duly authorized state board of examiners. Work Group VI sought to determine whether workers in the public school feel the need for state licensing regulations and to explore the probable impact of such regulations upon public school clinicians who engage in part-time private practice. (Of 757 clinicians who responded to questioning about private practice, 52% report having engaged in private prac-

TABLE 8-1. Sources of clients for the private practice of speech correction engaged in by public school clinicians. Values represent percentages of 757 clinicians indicating use of sources shown. Forty-six per cent of the clinicians report no private practice.

Source of Clients	%
Students enrolled in clinician's public school therapy classes	7
Students enrolled in public school therapy but working with other clinicians	6
Students eligible for public school therapy but not enrolled because of case overload	7
Children not eligible for public school therapy because of nature of handicap, parochial enrollment, etc.	36
Adults	23
Preschool children and children in areas where no other clinician is available	10

tice, drawing their clients primarily from among school-age children not eligible for public school speech correction and adults, as shown in Table 8-1. Table 8-2 shows the magnitude of the private practice caseload.)

TABLE 8-2. Maximum number of clients carried regularly in private practice by clinicians working full time in public school programs. Values represent percentages of 757 clinicians. Fifty-three per cent indicated no private practice or did not respond.

Number	%
3 or fewer	35
4 to 9	10
10 or more	2

The 19 state supervisors of speech and hearing therapy responding to a special questionnaire on state licensing as defined above indicated that no licensing is available in any of their states. Seven state supervisors indicated that state licensing in speech and hearing is needed. One responded that none is needed 'if the standard of training is held rigid by employing agencies.' Another indicated that 'some means of supervised private practice should be developed. There would seem to be more desirable methods than state licensing.' In five of the states groups of clinicians have proposed legislative licensing, usually through the state speech and hearing organization.

These state supervisors unanimously agree that the public is not yet aware of a need for licensing for the protection of speech- and hearing-handicapped from nontrained practitioners. At this time it would seem that there is no strongly felt need for legal licensing. However, there is some feeling that the private practitioner who operates separately from any public school agency needs some form of supervision. The American Speech and Hearing Association is presently engaged in efforts to bring about more proper certification and adequate supervision of its present and future members. The Committees on Standards and Clinical Certification and the American Boards of Examiners in Speech Pathology and Audiology are working toward these ends.

Programs of Professional Preparation

The completed questionnaires received from 168 academic institutions which offer training programs relative to public school speech and hearing therapy indicate that the undergraduate major is usually called a 'speech correction' major (33%) or a 'speech and hearing therapy' major (26%). Other designations include 'speech correction and audiology' major (9%), 'speech therapy' major (8%), 'speech pathology and audiology' major (5%), and 'speech pathology' major (4%).

These training programs are to be found primarily within colleges of liberal arts (59%) and teachers colleges (29%), occasionally (11%) within college or university divisions of education. The academic departments in which these programs are embedded are usually speech (78%), sometimes education (8%), English (4%), psychology (3%), or other departments (7%). The number of graduates of these programs during the combined academic years of 1957, 1958, and 1959 averaged 29, whereas the number of students enrolled in the combined classes of 1960, 1961, and 1962 average 52. The steady growth in numbers of graduates and anticipated graduates over this six-year period can be seen in Table 8-3.

TABLE 8-3. Number of students majoring in remedial speech and hearing graduated or expected to graduate with degrees indicated from training programs during a six-year period. Values represent mean numbers of students reported by 168 training institutions.

Class	*Bachelor's Degree*	*Master's Degree*	*Ph.D. Degree*
1957	6.6	1.5	.16
1958	7.7	1.8	.23
1959	8.6	2.2	.26
1960	10.6	3.7	.53
1961	12.7	4.6	.67
1962	14.6	4.8	.68

The average number of full-time and part-time faculty members in speech pathology and audiology training programs nationwide is 3.7, with the largest faculties reported in the Midwest

TABLE 8-4. Course requirements in 168 training institutions. Values represent percentages of institutions requiring, offering but not requiring, or not offering courses indicated in the speech pathology and audiology major.

Course	*Number Required 1*	*Number Required 2 or More*	*Offered but not Required*	*Not Offered*
Phonetics	90	5	0	3
Voice science (anatomy, acoustics)	73	13	5	8
Normal speech and language development	67	5	4	23
Speech correction (pathology)	60	34	1	4
Articulation disorders	70	16	1	13
Voice disorders	67	3	5	24
Stuttering	69	6	5	18
Organic disorders	67	15	1	15
Clinical methods	57	25	3	14
Clinical practice (in clinic)	39	56	1	4
Clinical practice (in public schools)	60	19	2	17
Laboratory methods	18	4	10	65
Hearing conservation	61	0	7	30
Audiometry	74	20	2	2
Lip reading	73	2	4	19
Child growth and development	70	12	9	7
Child psychology	67	7	8	18
Mental hygiene	77	2	5	14
Tests and measurements	48	3	21	27

(average 4.9) and the Northeast (average 4.4). The average number of graduate assistants and teaching fellows in the institutions responding is 2.4. Fifty-one per cent of the institutions indicate that faculty and graduate students do research in the public schools.

The Curriculum. Table 8-4 indicates the types of courses required, courses offered but not required, and courses not offered in the major curriculum at the training institutions. The most frequently required courses are in the areas of phonetics, speech correction (or speech pathology), audiometry, voice science, clinical methods, and clinical practice. Ninety-five per cent of the institutions require one or more courses in clinical practice conducted within the speech and hearing clinic, while 79% require one or more courses in clinical practice conducted within the public schools. Separate courses in normal speech and language development, articulation problems, stuttering, voice disorders, organic disorders, hearing conservation, and lip reading are required in the majority of the institutions but are not available in a substantial proportion of them.

Among the courses in related areas most frequently required are child growth and development (in 82% of the institutions), mental hygiene (79%), and child psychology (74%). These courses are required for certification by the American Speech and Hearing Association. Areas related to speech and hearing are listed in order of decreasing importance by 141 program supervisors and 757 public school clinicians as follows: psychology, special education, general education, and general speech.

Students majoring in the area usually take their first course in speech pathology during the sophomore year (in 43% of the institutions) or junior year (in 42%). In only 11% of the institutions do the students take the first course during the freshman year.

Thirty per cent of the 168 institutions responding do not offer a master's degree in speech pathology and audiology. Of the institutions that do award the master's degree, 57% require the writing of a thesis. With 41% of the institutions the writing of a thesis is optional, whereas with 2% the student is neither required nor given the opportunity to write a thesis.

Clinical Observation and Practice. Students begin required *observations* of clinical practice during their junior year at 51% of the college and university training programs and during their sophomore year at 35%. Six per cent of the institutions begin the requirement as early as the freshman year, while 4% delay it until the senior year. The average requirement involves 29 hours of observation in a clinic setting and 21 hours in a public school setting.

Undergraduate students in the typical training center are required to complete a total of 230 clock hours of *clinical practicum* (engaging in clinical practice as differentiated from observing it), 89 in the public school setting and 141 in a clinic setting. In the majority of the institutions (63%) the first practicum experience is obtained during the junior year. Twenty-six per cent of the institutions delay the first clinical experience until the senior year, and only 8% have the student's experience begin during the sophomore year. Practicum experience in the college or university clinic is

Table 8-5. Percentages of 757 clinicians reporting preparation of lesson plans and reports during training.

Report	*Frequency of Preparation* *Routinely*	 *Occasionally*	 *Never*
Lesson plans	77	16	5
Written evaluations of therapy procedures	66	24	9
Progress reports	71	22	6
Diagnostic reports	61	29	9
Summary reports	70	21	7

given daily supervision in 39%, only periodically in 55% of the institutions.

Table 8-5 shows with what frequency clinicians were required to prepare lesson plans and reports during their training. It is fairly evident that the majority of clinicians in training are having to write plans and reports, although lesson planning done on the job is considered inadequate by some state supervisors.

Twenty-six per cent of 757 therapists responding report that three-fourths or more of their practicum training was obtained in group therapy, 31% state that one-half of the practicum was in group therapy, and 30% report that one-fourth of their practicum consisted of group therapy. Only 10% reportedly received no training in group therapy.

Material relating to methods, organization, and administration of public school remedial speech and hearing programs is taught in a separate course in 36% of the institutions and as part of a general course in 49%. Such material is taught only incidentally in 13% of the institutions, not at all in 2%.

Student teaching experience in speech and hearing is required at 48% of the institutions and in regular classroom teaching at 7%. Thirty-eight per cent require student teaching in speech and hearing and in regular classroom teaching as well. Only 26% require student teaching in school systems where there is no speech and hearing program.

Student teaching is supervised by both training program and public school staff in 68% of the institutions. In another 30% the training program staff provides the supervision while in only 2% is the supervision done by public school critic teachers alone. Thirty-four per cent of the institutions report daily supervision of public school student teaching, 52% periodic supervision.

Graduate Training. Over 75% of 705 public school speech and hearing clinicians responding have training in excess of the bachelor's degree with 40% of the total number having a master's degree or more. Graduate training is considered essential by 47% of 141 supervisors and desirable by 52%, while 42% of clinicians consider it essential and 56% consider it desirable.

In a similar vein 61% of program supervisors favor a five-year minimum training requirement for a speech and hearing certificate. A majority of clinicians (55%) agree with them.

Of 757 public school speech and hearing clinicians 54% indicate that clinicians should be trained to do research while 41% feel that clinicians should be able to read and understand research

Table 8-6. Evaluation by public school clinicians of training received. Values represent percentages of 757 respondents who rated their theoretical and practical training in the areas indicated as 'Good,' 'Fair,' or 'Poor.'

Area of Training	*Theory*			*Practice*		
	Good	*Fair*	*Poor*	*Good*	*Fair*	*Poor*
Articulation	89	9	0	79	17	2
Stuttering	58	31	9	29	37	29
Voice disorders	34	45	19	15	38	43
Cleft palate	55	33	10	32	34	29
Cerebral palsy	44	33	20	25	30	40
Hearing testing	74	15	7	68	17	10
Normal speech and language development	75	20	3	58	28	9
Organization and management of public school program	49	28	21	44	26	26
Scheduling	50	26	20	47	26	23
Professional relations	70	22	6	63	26	8
Child growth and developement	79	17	2	61	30	5

but not conduct it. Forty per cent of 141 supervisory personnel indicate that the clinician should be trained to do research while 54% feel that the clinician should be able to read and understand research but not conduct it.

Evaluation of Training by Clinicians. Table 8-6 summarizes the evaluations made by 757 practicing clinicians of their 'theoretical' courses and clinical practice during training. It can be seen that in the areas of articulation, hearing testing, normal speech and language development, and child growth and development the clinicians feel their training to have been most adequate. On the other hand, they express considerable dissatisfaction with their theoretical coverage of organic speech disorders, voice disorders, and procedures involved in setting up and conducting remedial programs in the public schools. In these same areas, and in the area of stuttering as well, a substantial percentage report that their supervised clinical practice was deficient.

In this connection it is interesting to note that of the 168 representatives of training programs responding to the question 'Do you have the problem of not being able to provide an adequate number and variety of cases for students' clinical experience?' 65% replied in the negative. Perhaps administrators of training programs and public school clinicians do not agree on how much of what kind of practicum experience with what kind of cases should be provided at the various levels of training.

Table 8-7. Percentages of 705 clinicians reporting that professional association matters were discussed during their training.

Subject	%
ASHA certification requirements	73
Significance of a national organization	75
ASHA Code of Ethics	71
ASHA journals	86

Clinicians also reported whether or not there was discussion during their training of certain matters pertaining to professional conduct and participation in professional organization activities. Table 8-7 shows that about three-fourths of 705 clinicians report

Table 8-8. Rankings of importance of four areas of additional practicum by 45 supervisors who feel that 200 clock-hour requirement is inadequate. Values represent percentages of total of 141 supervisors.

Area of Additional Practicum	*Rank of Relative Importance*			
	1st	*2nd*	*3rd*	*4th*
Group therapy	14	4	4	10
Diagnosis	11	5	10	6
Parent counseling	4	14	11	3
Individual work with severely handicapped	3	9	8	13

that they were exposed to discussion of each of four of these topics. However, only 59% report that all four topics were discussed during training, 14% report discussion of three, 9% report discussion of two, and 9% report discussion of only one. Seven per cent report that none of the four topics was discussed during their training.

Evaluation of Training by Supervisors. State and local supervisors were asked whether they consider to be sufficient the minimum practicum requirement of 200 clinical clock hours specified for Basic Certification by the American Speech and Hearing Association and also found in many state certification requirements. Sixty-eight per cent of the 141 supervisors feel this requirement to be adequate for the training of public school clinicians. Those who feel it to be inadequate ranked in importance four areas in which additional training should be required. The results of their rankings, reported in Table 8-8, indicate that they consider additional practicum in group therapy and diagnosis most important, although additional practicum in parent counseling is ranked high.

The 19 state supervisors of public school programs who were asked for additional comments feel that training institutions would benefit public school programs and the students to be employed in those programs by devoting particular attention to the following:

a. The development on the part of the faculty of training programs of a broader and deeper understanding of the public school situation. First-hand experience in a public school setting can help the faculty understand and communicate to their students the nature of public school policies and the reasons for them, the appropriate choice of procedures in school remedial programs, and the best way to establish and conduct these programs.

b. The provision of more frequent and more comprehensive supervision of the student teaching experience in the public school.

c. Stress on the mechanics of organization of public school programs (lines of communication, scheduling, methods of grouping children for therapy, etc.).

d. Helping students understand how to discover and use a variety of community resources which will enrich the service they provide and avoid duplication of effort.

Problems in Training Programs. Institutional representatives were asked to indicate how important each of several potential problems is to their programs of training of personnel to work in the

TABLE 8-9. Relative severity of seven potential problems to institutions training students to work in public schools. Values represent percentages of 168 institutions.

Type of Problem	*Severity of Problem*		
	Severe Problem	*Minor Problem*	*No Problem*
Insufficient staff for teaching	18	46	34
Insufficient staff for research	52	26	20
Insufficient staff for supervision of practicum	29	45	25
Inadequate numbers and types of cases for student practicum	5	28	65
Insufficient funds for new equipment	23	43	32
Inadequate physical facilities	30	36	32
Difficulty meeting requirements of ASHA, state certification, and graduation at same time	19	26	54

public schools. Data are presented in Table 8-9 and Figure 8-2.

Insufficiency of staff for teaching subject matter poses no problem for one-third of the institutions. It is a minor problem for one-half and a severe problem for about one-fifth. One-half of the institutions find insufficiency of staff for research (as pertains to maintenance and development of programs for preparing students for public school work) a severe problem, one-fourth a minor problem.

Insufficiency of staff for supervision of practicum appears to be a bigger problem for some institutions. Only one-fourth indicate that they have no problem of supervision of practicum; in about one-fourth of the replies the problem is said to be severe, in 45% minor. It was expected that inadequacy of cases might pose a problem in training centers, but 28% of the respondents consider it a minor problem and only 5% a severe problem.

The lack of funds for new equipment constitutes a severe problem in about one-fourth, a minor problem in less than one-half of the institutions. Inadequacy of physical facilities poses no problem for about a third of the respondents but constitutes a minor problem for one-third and a severe problem for one-third.

Another problem of the training institutions appears to be the difficulty of meeting the requirements of ASHA, state certification, and graduation all at the same time. It is a minor problem for 26%, a severe problem for 19%.

Summary

Work Group VI dealt with the matter of professional standards by investigating (a) certification by states and by the American Speech and Hearing Association, (b) state licensing, and (c) programs of professional training.

A review of the state requirements for certification of public school speech and hearing clinicians indicates that 32 states (64%) have course and practicum requirements equivalent to those specified for Basic Certification in Speech in the American Speech and Hearing Association. In some states a single certificate applies to work with both the speech- and hearing-handicapped.

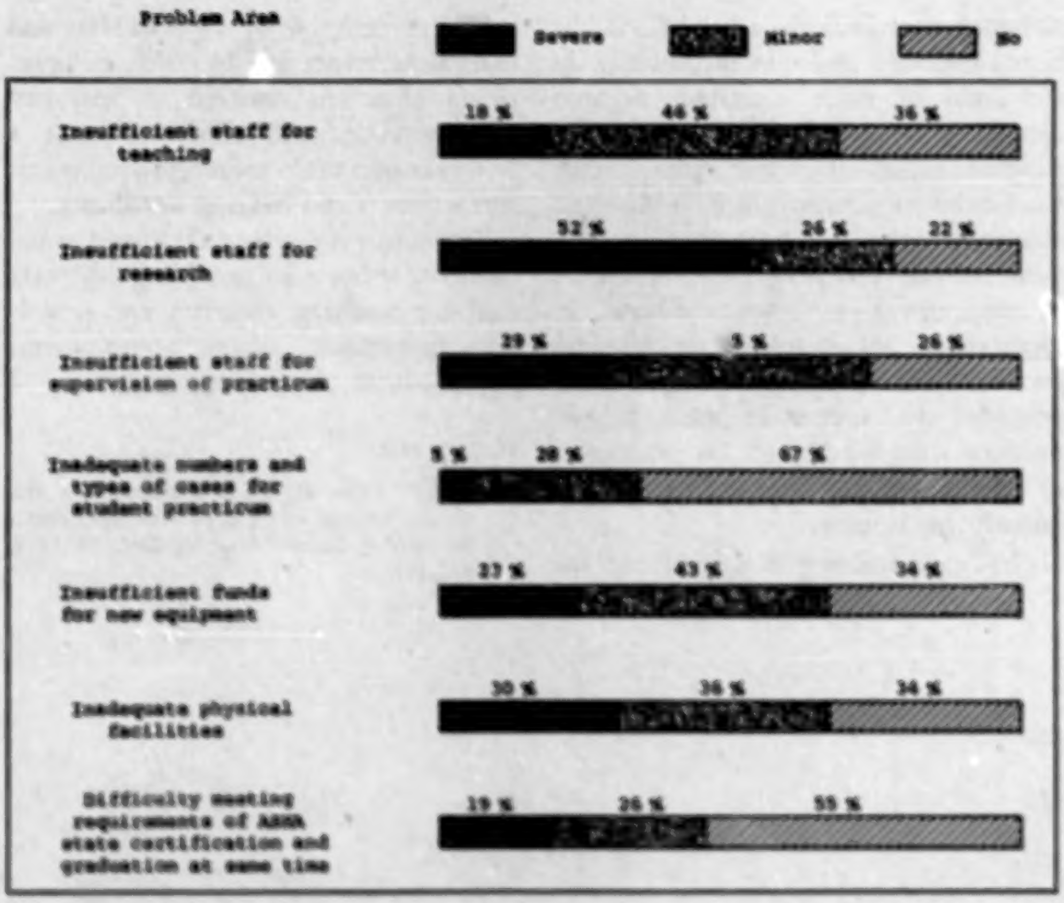

FIGURE 8-2. Relative severity of seven problems as reported by representatives of 168 institutions which train public school clinicians.

However, if a clinician is to work with severely hard of hearing children, he will often have to meet the requirements for separate certification in hearing.

Responses from clinicians working in the public schools indicate that about half of them hold a state certificate. Twenty-five per cent hold Basic Certification in either Speech or Hearing in ASHA, about 3% Advanced Certification in Speech or Hearing. Another 21% report having applied for Basic Certification in Speech and Hearing and may be assumed to be qualified. Undoubtedly many other clinicians have completed equivalent training and experience but have not applied for certification.

No program of licensing (on the basis of a state board examination) now exists in any state and no general feeling of need for such a program has been discerned, although seven state supervisors of speech and hearing programs stated that in their opinion such licensing is needed and in five states groups have recommended the study of licensing.

Graduates of training programs express satisfaction with most of their theoretical and clinical practice courses, although they indicate a need for additional teaching and clinical practice in the areas of voice disorders, organic disorders, stuttering, and public school program organization and management. Curricular requirements are highly variable from institution to institution. Less than half of the programs include as a requirement a separate course in methods of public school speech correction. The amount of supervision provided the student in public school practice teaching and in his practicum in a clinic setting appears to be frequently inadequate.

Graduate training is considered essential or desirable by 99% of state and local supervisors and by 98% of practicing clinicians sampled. A majority of supervisors and clinicians favor a five-year minimum training requirement for a speech and hearing certificate.

Training programs reflect substantial need for support in providing adequate staff for teaching, research, and practicum supervision; adequate equipment; and adequate physical space.

Reference

1. Irwin, Ruth B., Speech therapy in the public schools: state legislation and certification. *J. Speech Hearing Dis.*, 24, 1959, 127-143.

IX. Recruitment for Careers in Speech Pathology and Audiology

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Work Group VII was given the mission of determining the need for recruitment of personnel to the professional field of speech pathology and audiology, reviewing and evaluating current practices within the profession, and discovering what recruitment procedures used by other professional associations and agencies might be adapted for future use by personnel in speech and hearing. The investigation involved review of the literature on recruitment; securing information by means of questionnaires sent to clinicians and supervisors within the field; interviewing guidance personnel; and securing information from high schools, colleges, professional associations (for example, the American Nurses Association, American Medical Association, American Physical Therapy Association, National Education Association, National Association of Social Workers, National League of Nurses, Parent-Teachers Association, Council for Exceptional Children, and all state educational associations), fund raising organizations (National Society for Crippled Children and Adults, Inc., and the United Cerebral Palsy Association), professional sororities and fraternities (Sigma Alpha Eta, Zi Iota Zee, Zeta Phi Eta, and Delta Kappa Gamma), and various governmental agencies (health, education, vocational rehabilitation, military service, etc.) concerning preferred practices in the dissemination of information about and the attracting of persons into particular fields of endeavor.

Need for Recruitment

It has been obvious for several years that the supply of speech and hearing clinicians must be increased if the needs of children with speech and hearing handicaps are to be met. The report of the ASHA committee on the Midcen-

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Table 9-1. Estimated incidence and prevalence of speech and hearing problems among United States 1960 population (50 states plus Puerto Rico). Adapted from Table 2 of reference (*1*).

Group	*Population*	*Incidence of Speech Problems*	*Prevalence of Speech Problems*	*Incidence of Significant Hearing Problems*	*Prevalence of Significant Hearing Problems*
Under 5 years, Continental U.S.	21,019,000	1.3%	262,737	.3%	63,057
5-19 years, Continental U.S.	49,782,000	5.0%	2,489,100	.7%	348,474
Over 19 years, Continental U.S.	110,353,000	3.0%	3,310,590	2.1%	2,317,413
All Ages, Alaska, Hawaii, Puerto Rico	3,000,000	3.4%	102,000	1.5%	45,000
Total	184,154,000		6,164,427		2,773,944

tury White House Conference on Children and Youth (*2*) pointed out that the then existing supply of clinicians would have to be multiplied approximately 7½ times if a 'complete program' for the United States were to be accomplished. The most recent authoritative estimate of personnel needs was prepared in 1959 by the ASHA Committee on Legislation (*1*). On the basis of the incidence and prevalence figures presented in Table 9-1, the Committee on Legislation stated:

> To meet the needs of the speech-and-hearing-handicapped children and adults in the United States would require over 32,000 adequately trained speech pathologists and audiologists. Good practice suggests a case load of not more than 100 children per clinician in a public school speech program. A total of 25,000 clinicians would be needed to serve the needs of the 2,500,000 speech and hearing impaired school children in the United States.
>
> The Office of Vocational Rehabilitation has estimated the need for one speech pathologist and one audiologist per 50,000 population providing a strong speech and hearing program is operating in the schools. To meet the needs of the adult speech and hearing group over 7,300 trained personnel would be required. These 7,300 added to the 25,000 needed for school-age children make a total of 32,300 competent professional people needed in the fields of speech and hearing. The need for over 32,000 speech pathologists and audiologists is in sharp contrast to the present supply of about 2,000 certificated and 5,000 non-certificated personnel in the speech and hearing field.

In the present National Survey supervisors of public school speech and hearing programs were asked whether the results of recruitment programs within their states are commensurate with personnel needs. Sixty-six per cent of the 141 supervisors responding answered in the negative, only 8% answering affirmatively. Asked whether in their opinion sufficient training facilities existed to take care of more students in the field, 55% of the supervisors replied 'yes,' 7% replied 'almost,' and 14% replied 'no' (24% did not respond).

It appears that many present training programs can without expanding their staffs and training facilities accommodate more students than they now train

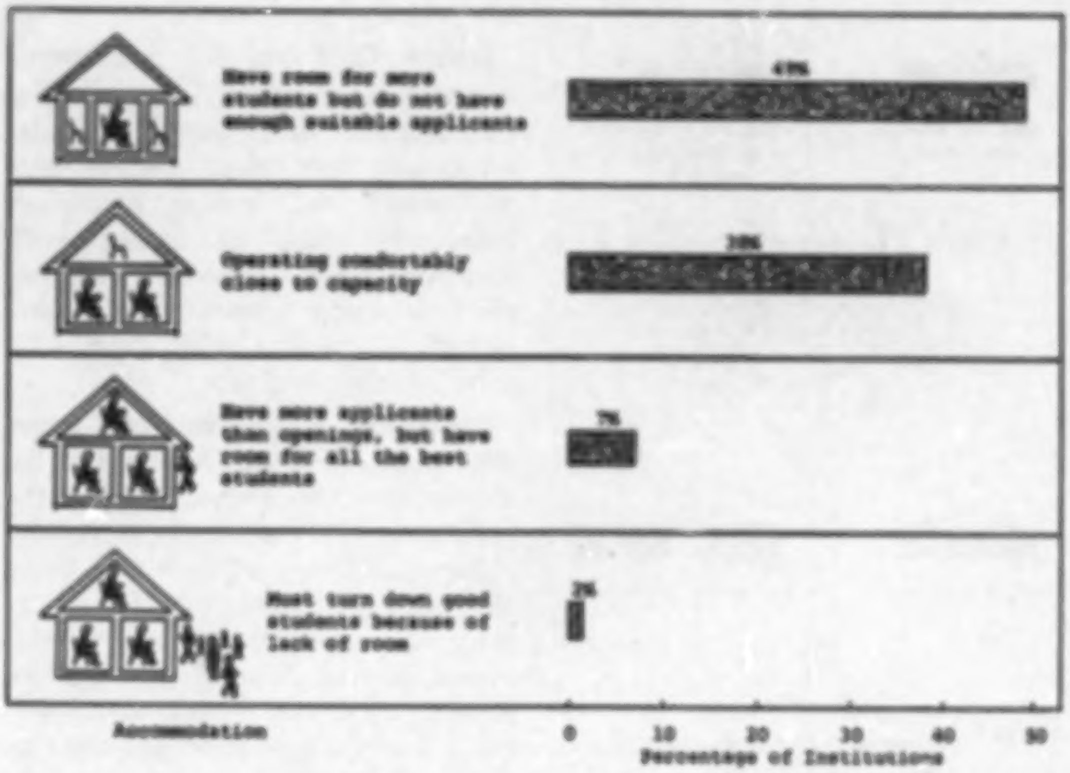

FIGURE 9-1. Ability of training institutions to accommodate more students as reported by representatives of 168 institutions.

(see Figure 9-1). Representatives of 168 training institutions responded to questions about accommodating more students; 49% indicate that they have room for more students but do not have enough suitable applicants. Thirty-eight per cent state that their programs are operating comfortably close to capacity. Another 7% report having more applicants than openings but avow that they have room for all the best students. Only 2% report having to reject good students because of lack of room.

Past Influences on Vocational Choice

It is of some importance in the development of future recruitment policies and programs to know how and when clinicians actively engaged in speech correction made the decision to select this vocation. A total of 757 clinicians answered questions concerning these matters.

Only 12% had decided prior to entering college that they wanted to be speech clinicians. Fourteen per cent decided during their first year of college and 39% during one of their last three years of college. Fully one-third made the decision *after* graduation from college.

About one-fourth of the respondents indicate that the major influence upon their choice of vocation was exerted either by a friend who was studying or had studied to be a speech clinician

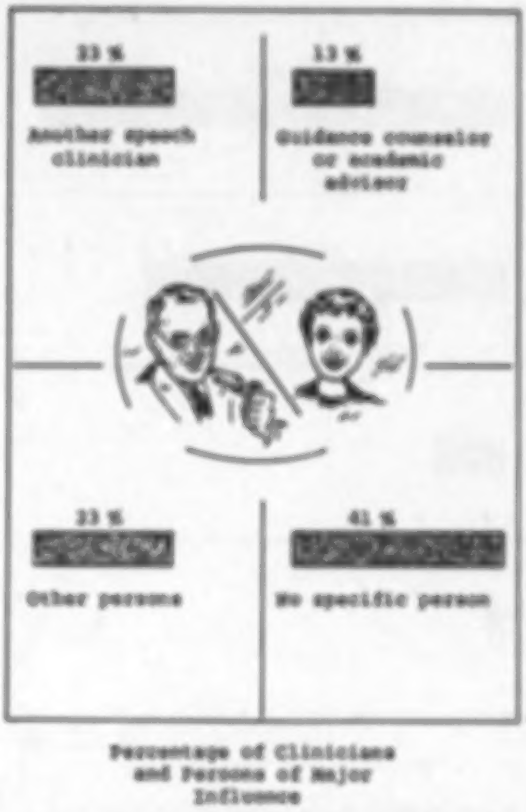

FIGURE 9-2. Persons exerting major influence regarding choice of vocation upon clinicians in nationwide sample (N = 757).

(16%) or by a clinician working in the school they attended (7%). Thirteen per cent were influenced primarily by a guidance counselor or academic advisor, either in high school (2%) or in college (11%). Twenty-three per cent mention influence exerted by 'other' personnel, and 41% mention no one individual as having exerted significant influence (Figure 9-2).

Of those responding 90% report that they have never had a speech disorder. Of the 10% who have had a speech problem, half report that it influenced their vocational aims, half that it did not.

Current Recruitment Efforts

Speech Clinicians and Supervisors. Practicing clinicians were asked what they personally do in their communities to acquaint high school students with the speech and hearing profession. Fully 60% report no contacts with students for this purpose. Twenty-six per cent report talks to students and 'superficial contacts' with them, 12% more extensive contacts.

Supervisors of programs are somewhat more active than clinicians in disseminating information about the profession: 40% report talks to students and supplementary contacts with them, 21% more extensive contacts. However, 36% report no contacts of this nature, perhaps because of limitations imposed upon such recruitment activities; 6% of the supervisors indicate that their recruitment program is definitely limited while another 34% indicate that it 'sometimes' is. One-third report that they usually experience no limitation; one-fourth did not respond.

Supervisors who responded to the question indicate that they experience greatest success in recruitment among high school students (24% so indicate). Twenty-one per cent report greatest success in recruitment among teachers, 9% among college freshmen, and 14% among other undergraduate college students.

Supervisors were asked to what extent they make use of films, filmstrips, pamphlets, newspapers, high school workshops, and high school talks in conducting recruitment programs. Forty-four per cent report the use of one or two of these aids or devices, 24% the use of three or four of them.

Five per cent report the use of five or more of them.

Most supervisors feel that steps should be taken actively to inform students of career possibilities in speech and hearing. Only 8% express the opinion that speech and hearing personnel should let recruitment 'take care of itself' through operation of the law of supply and demand or through such efforts as would ordinarily be made by college advisors or by clinicians and supervisors in their incidental contact with students. About one-half feel that 'drives' to recruit personnel for careers in speech and hearing should be incorporated into more general recruitment programs such as are found in college 'career days' or 'career conferences.' About one-third favor separate drives conducted by speech and hearing personnel, in this way dissociating speech pathology and audiology from other educational and therapeutic professions.

In the opinion of these supervisors, clinicians are a potent force in actively and effectively recruiting personnel. About one-fourth of the supervisors give clinicians credit for doing the best job of recruiting. Others mentioned as the most active and effective recruiting agents are colleges and universities (44% so indicated), state speech and hearing associations (6%), state departments of education (5%), and high school counselors (4%).

High Schools, Colleges, and Universities. Those institutions of higher learning which have training programs in speech pathology and audiology engage in activities which may be related, directly or indirectly, to recruitment. Sixty-eight per cent of such institutions (out of 168 responding) perform speech and hearing surveys in public schools, and in 51% of the institutions faculty members or graduate students engage in research conducted in the public school or making use of public school pupils. Such activities can be conducive to good professional public relations and may engage the interest of students and teachers in the professional field.

An important way in which these institutions focus public attention on the field is by providing speakers for groups of teachers and parents in the public schools. Eighty-nine per cent of the institutions report such service. Even more direct service to those needing remedial work is afforded by 82% of the institutions through the provision of 'student clinicians' (student teachers) for the public schools. And of course educators and the general public become aware of the nature and importance of speech and hearing services through the efforts of clinicians working in the schools. These clinicians constitute the bulk of the graduating classes of the training programs. Sixty-four per cent of the institutions report that three-fourths or more of their graduates (bachelor's and master's degree levels) are employed by the public schools; 20% indicate that about half of their graduates are so employed; only 10% report that one-fourth or less of their graduates are so employed.

Some institutions are much more directly engaged in recruitment activities. For example, Purdue University reports an experimental project concerning recruitment which has been conducted during the past four years. The purpose of the project is to investigate the practicability of conducting an organized recruitment program and to test the results of such an effort.

Each year high school officials throughout the state have received announcements of the program and have been urged to encourage outstanding girls in the junior class to submit applications. From the more than 300 applications received, 24 girls have been awarded scholarships providing room, board, and tuition for one week at the University. During this workshop the participants have attended classes where the nature of speech problems and the therapies employed, the requirements for licensing and certification, the courses and training required, and the vocational opportunities available have been discussed. In addition, the students have participated as cadet clinicians in the speech and hearing clinic.

This program has involved a minimal expenditure of money, the funds being provided by a national philanthropic sorority. A follow-up study is being conducted to ascertain the results of such a program. More than 80% of the students attending the initial workshop are currently enrolled in speech and hearing training programs. In addition, these students have been influential in recruiting other students to the field.

This project would indicate that an organized attack, conducted with a minimal expenditure of money, can result in very satisfactory recruitment of outstanding students for high level academic clinical training programs.

Many colleges which have no speech pathology and audiology training programs are making some contribution toward recruitment of personnel for the field. Out of 112 institutions responding, 42 (38%) report that they introduce students to the field of speech pathology and audiology, mainly through courses in speech, education, psychology, and English. Information is provided to students largely by the teachers of the courses and by academic advisors but sometimes by invited speech and hearing clinicians. Students are usually introduced to the field when they are freshmen and sophomores, less frequently when they are juniors and seniors.

High schools report some awareness of the professional field of speech pathology and audiology, and a small percentage of schools surveyed engage in recruitment programs related to the profession. Out of 185 high schools surveyed in all parts of the country, over one-half have scheduled a recruitment program for professional service of various types but only 30 (16%) include recruitment specifically for speech pathology and audiology. Such programs are typically administered by guidance counselors with the occasional help of local speech clinicians, teachers of practically all subjects giving assistance. These programs are typically directed toward seniors and juniors and are conducted most usually during the spring or winter. Motion pictures, filmstrips, and printed materials are most frequently used, and a few schools maintain a current file of materials pertaining to speech and hearing.

Are such efforts in the high schools successful? Only seven out of the 185 schools responding indicated that their program had led to successful recruitment of personnel for training in speech pathology and audiology. Many respondents were of the opinion that the high schools should not engage in recruitment but rather should educate and inform the pupils of attractive professional fields through individual counseling, career days, and organizations like Future Teachers of America.

Recommended Practices

A review of 410 magazine articles and numerous pamphlets and books on the subject of careers and vocational counseling yielded practical suggestions concerning the conduct of recruitment programs. Interviews with high school and college guidance counselors and correspondence with other professional associations and with governmental agencies similarly contributed to an understanding of what procedures are most effective in interesting young people in given areas of work. The many recommendations derived from these varied sources are summarized as follows:

a. Personal contact is of paramount importance. A person is most likely to become interested in a field of endeavor if he is singled out and talked with individually by someone well acquainted with the field and enthusiastic about it. The personal interview of the prospective clinician (and perhaps also of his parents, who likely play a significant role in his choice of vocation) is probably the most valuable method of recruitment.

Such face-to-face contacts are economical and each one is unique; questions that puzzle the prospective clinician can be answered to his satisfaction and the most recent information shared with him.

b. Effective follow-up of the personal interview may be accomplished in various ways: additional information can be provided through motion pictures, filmstrips, and printed materials; opportunities to observe therapy in action can make the work of the clinician clear and vivid; seminars can be planned for interested persons.

c. Stress upon the contribution the potential clinician can make to the individuals he serves and to society in general is worthwhile. He can be made aware of the magnitude of the population of handicapped persons and their needs and shown the worth of his personal efforts to assist them.

d. The abundance of job opportunities and the variety of experience one may find in them should be made clear to the prospective clinician. Salary ranges should be described and the values to be found in professional associations delineated.

e. A variety of materials should be prepared to accomplish many purposes in many settings. Posters; filmstrips and motion pictures describing the field; printed, attractively illustrated flier and brochures; newspaper stories; TV and radio spot announcements; slides; tape recordings—all have their purpose and are particularly useful in certain situations.

f. An effort is necessary to see that these materials are available to the right people at the right time. School guidance personnel should be furnished appropriate materials in sufficient quantity to meet their needs for such special occasions as career days and for their continuing contact with students. School libraries can display posters, accommodate exhibits, and add bulletins to their collection for student and faculty use. Counselors at military separation centers should be considered likely distributors of information to those personnel being discharged who may be about to select a career or an institution in which to obtain training for a chosen career.

g. Other actions may help counselors and teachers who have vital contact with students be more alert to the opportunities in speech pathology and audiology. Articles in national and regional journals read by guidance personnel and teachers will give them useful information and insight. Friendly personal contact between speech and hearing personnel and their professional co-workers—counselors, principals, superintendents, nurses, classroom teachers—can lead to useful exchange of information about their work and attitudes of mutual respect.

h. Training institutions and groups cooperating with institutions (for example, state and local associations of speech and hearing personnel) can arrange visitation by interested students to college campuses to observe aspects of the training, clinical, and research programs. Conferences for students, their parents, and college personnel can be arranged. Groups may use scholarships and awards as special inducements. Local 'future clubs' may be useful—counterparts in the area of speech pathology and audiology of such existing clubs as Future Teachers of America and Future Farmers of America.

i. Professional personnel can participate usefully in 'career days' and 'career conferences' planned by high schools and colleges. They can also make their services available to speaker's bureaus or even organize a speaker's bureau and seek out opportunities to address groups of students, parents, and teachers.

j. Assistance in the development of a recruiting program is available from the Conference of Professional Associations on Health Careers (*3*). This Conference, sponsored by the National Health Council, has met annually for the past three years for the purpose of surveying personnel needs and developing effective methods for attracting individuals to the professions.

Discussion

It has become apparent to the members of Work Group VII that other professions have been more active and more effective in 'selling' themselves and recruiting personnel than has the profession of speech pathology and audiology. There appears to be little awareness among the general population and among those most actively engaged in personnel counseling of the existing need and of the opportunities and rewards to be found in a professional career in this field. A carefully planned recruitment program to be carried out on a national scale with detailed local follow-up appears to be of utmost importance to this profession now. In view of the clear present recognition that the clinician of the future must be even more highly skilled than are present clinicians, attention should be focused not only upon inducing more people to enter professional training but also upon the careful selection of these personnel.

Recruitment is the responsibility of everyone in the field. However, an integrated, comprehensive recruitment program which will function effectively at national, state, and local levels requires leadership, detailed planning, financing, and implementation by persons or committees assigned specific responsibility in this area. Thought should be given to the appointment of one or more individuals to a position in the national office of the American Speech and Hearing Association or in the Office of Education whose primary responsibility would be the development, promotion, and evaluation of an integrated recruitment program, coordinating the efforts of all speech and hearing personnel in attracting able, conscientious young people to serve as tomorrow's clinicians.

Summary

There is a substantial need for workers in the field of speech pathology and audiology—and specifically for service within the public schools. Present recruitment programs appear to be inadequate to meet the need. Some training institutions can presently accommodate larger numbers of students who have suitable qualifications; other training programs must be expanded to accommodate additional students.

Perhaps the most successful recruitment efforts are currently being made by colleges and universities, particularly through talks to community groups and through their services to the schools. Clinicians and supervisors of speech and hearing programs in the schools can be effective in recruitment although they are handicapped by limited contact with high school students. Guidance counselors can also exert significant influence upon vocational choice.

The importance of personal contact with a potential clinician is suggested by the reports of present clinicians regarding persons who influenced their choice of vocation. An active recruitment program involving personal interviews with follow-up would appear to be most effective when directed toward high school juniors and seniors and college underclassmen.

Effective recruitment drives make use of multiple approaches and materials. Existing channels for dissemination of information—for example, career days and conferences and high school and college guidance counselors—can be helpful when they have adequate information about the nature of the work, job opportunities, professional rewards, and training resources.

The personal participation in recruitment of each individual now active in speech and hearing programs is urged. In addition, consideration should be given to the appointment of one or more individuals at the national level to formulate, implement, and coordinate extensive programs of recruitment of future clinicians.

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X. Research: Current Status and Needs

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Work Group IX was asked to determine the current status of research on public school speech and hearing problems and to analyze data obtained via the questionnaires and contained in the reports of the other work groups in order to identify areas of needed research. The group limited itself to applied research related to public school speech and hearing services and to children of school age, published since January 1, 1946. The term 'research' was interpreted to mean any systematic accumulation of data, either descriptive or comparative, pertaining to a specifically identified problem.

Work group members analyzed research literature in periodicals, reviewed research reported in master's theses and doctoral dissertations, analyzed the results of replies by clinicians, supervisors, and training program personnel to questionnaire items pertaining to research, and conducted a questionnaire survey (devoted specifically to activities in and attitudes about research) of a sample of 30 selected speech and hearing personnel in Pennsylvania, Missouri, and California.

Review of Research Literature

A comprehensive survey was made of speech and hearing, medical, and educational journals. A total of 128 articles met the definition of research literature. Approximately two-thirds of the articles are concerned with the subject of diagnosis and measurement in the field of hearing. The remaining articles are devoted primarily to remedial procedures, although seven articles or monographs identify areas of needed research. Research articles related to other topics are practically nonexistent.

Graduate theses and dissertations, as reported in *Speech Monographs* for the years 1947 through 1959, were reviewed. A total of 313 master's theses and 50 doctoral dissertations met the definition of applied research. Table

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Wilbert L. Pronovost (Ph.D., University of Iowa, 1939) is Director of the Speech and Hearing Center, Boston University. Charlotte G. Wells (Ph.D., University of Wisconsin, 1941) is Professor of Speech and Director, Speech and Hearing Clinic, University of Missouri. David L. Gray (M.Ed., Boston University, 1953) is Speech Clinician in the Pasadena (California) City Schools. Ronald K. Sommers (Ed.D., University of Pittsburgh, 1960) is Supervisor, Speech and Hearing Therapy, Armstrong County (Pennsylvania) Schools.

TABLE 10-1. Classification of 363 theses and dissertations according to nature of subject matter and type of disorder treated.

Subject Matter		*Type of Disorder*	
Area	*No.*	*Disorder*	*No.*
Diagnosis and measurement	194	Articulation	128
Remedial procedures	89	Combination	118
Professional relationships	45	Hearing (loss)	44
Administration and supervision	25	Stuttering	40
Program management	4	Aphasia (language)	11
Professional standards	3	Delayed speech	8
Speech improvement	3	Mental retardation	6
		Voice (problems)	5
		Cleft palate	2
		Deafness	1

10-1 shows that the majority of these studies pertain to diagnosis and measurement (194) and remedial procedures (89). The disorders receiving greatest emphasis are articulation problems (128), hearing loss (44), stuttering (40), and combinations of disorders (118).

Compared to research literature published in periodicals, the amount of research done by graduate students is substantial. Unfortunately much of this work is not published and therefore is not readily accessible to public school personnel. The high proportion of graduate research on diagnosis and

TABLE 10-2. Percentages of clinicians, state supervisors, and local supervisors who have engaged in research on topics indicated and in ways shown.

Nature of Research	*Clinicians (N = 757)*	*State Supervisors (N = 40)*	*Local Supervisors (N = 101)*
Research Topic			
Comparison or development of therapeutic techniques	21	35	32
Development of testing techniques and devices	13	20	31
Comparative effectiveness of contrasting scheduling methods	10	28	27
Incidence studies	11	48	45
Way Research Was Conducted			
A requirement for a course or advanced degree	10	15	18
A voluntary project on own time	25	20	37
A part of regularly scheduled work	12	40	32
In cooperation with academically sponsored research	6	20	17

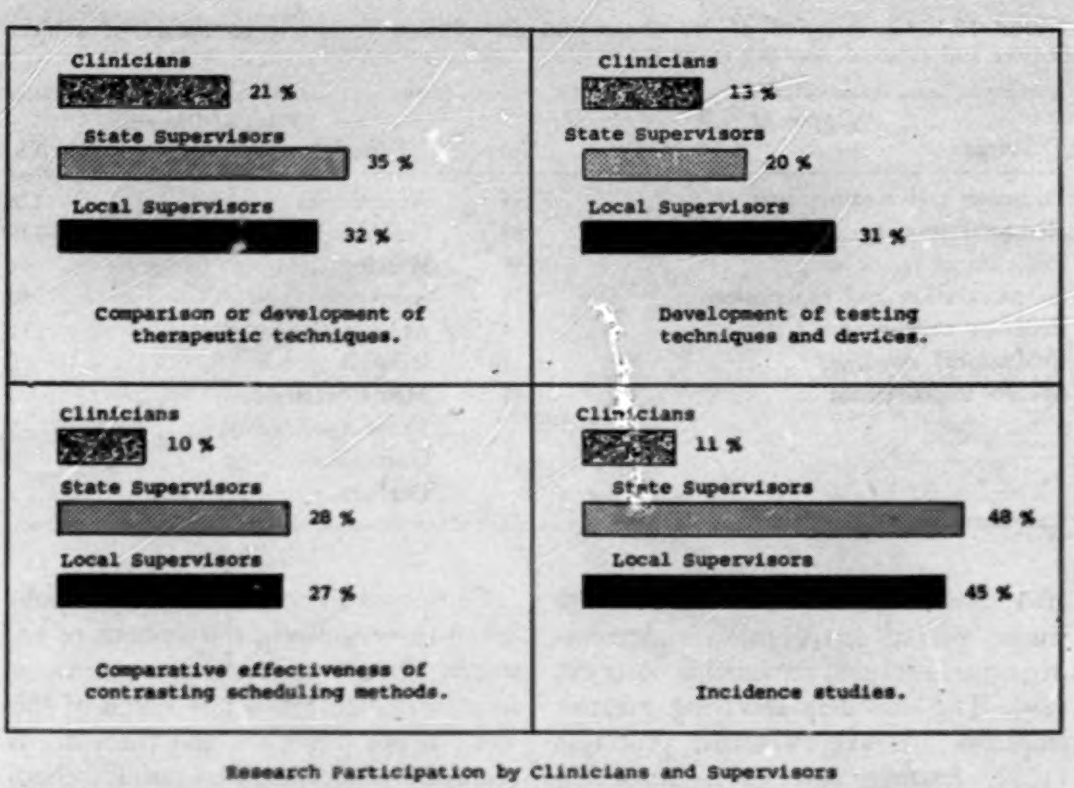

FIGURE 10-1. Percentages of clinicians and supervisors engaged in research on various topics as reported by nationwide sample of 7[illegible] clinicians, 40 state supervisors, and 101 local supervisors.

measurement is similar to that published in periodicals, but the emphasis is on articulation or a combination of disorders rather than on hearing. The amount of research on remedial procedures, professional relationships, and administration and supervision is encouraging. The scarcity of research on other topics of concern in the National Survey is indicative of the need for increased research activity in these areas.

Research Activities of Public School Personnel

Clinicians and program supervisors who received questionnaires were asked to indicate whether they had been or were currently engaged in research on certain topics. Forty-two per cent of 757 clinicians and 66% of 141 supervisors indicate that they are currently doing or have done research. Table 10-2 and Figure 10-1 show the percentages of clinicians and supervisors who have done research on four topics; the table also indicates the ways in which these research undertakings were conducted.

In the responses of 30 clinicians to more intensive questioning, 40% reported research completed or in progress. Seventy-five per cent of the group indicated that they keep standard records that could provide research data.

It is apparent from the above data that research activities are more frequently undertaken by supervisors than clinicians. However, it would appear

TABLE 10-3. Percentages of 705 clinicians (C) and 141 supervisors (S) indicating relative degrees of need for research on five topics related to caseload scheduling.

Topic of Research	*Degree of Need for Research*					
	Urgent		*Moderate*		*No Need*	
	C	*S*	*C*	*S*	*C*	*S*
Number of students seen at one time	25	35	53	50	18	11
Times per week they are seen	39	46	47	44	11	6
Length of therapy sessions	20	27	54	53	22	16
Block system vs. regular scheduling	28	30	45	50	14	15
Homogeneous vs. heterogeneous grouping	28	33	50	50	17	13

that the research is concerned with incidence and caseload rather than with the effectiveness of methods or programs.

Personnel associated with training institutions also participate in research in the public schools. Fifty per cent of the 168 institutional representatives responding report research activity in the public schools by faculty or graduate students.

Opinions Concerning Research

Clinicians and supervisors were asked to give their opinions about the need for research on certain topics and the public school climate for research activities.

Need for Research. Table 10-3 presents the responses of 705 clinicians and 141 supervisors to questions concerning the urgency of need for research to clarify the importance of five factors related to caseload scheduling. Seventy per cent or more of both groups of respondents recognize the need for research on all five factors. Both groups indicate that the question most urgently in need of an answer pertains to the frequency with which therapy should be scheduled. Supervisors indicate greater urgency of need for research on all five topics than do clinicians.

School Attitudes Toward Research. The 141 program supervisors and a group of 705 clinicians were asked whether the doing of the needed research would be permitted in the schools. Sixty-eight per cent of the supervisors and 61% of the clinicians answered in the affirmative, while 21% of the supervisors and 35% of the clinicians replied that they did not know. Only 4% of the supervisors and 3% of the clinicians replied negatively.

The supervisors and a group of 757 clinicians were asked about the attitude of their school systems toward research. Seventy-three per cent of the supervisors and 62% of the clinicians indicate a favorable attitude, while 18% of the supervisors and 29% of the clinicians indicate that the attitude is one of indifference. Less than 5% of the school systems are reported to be unfavorable toward research. These data are summarized in Figure 10-2.

Clinicians and supervisors were asked to indicate in what ways they thought school systems should encourage clinicians to do research. Their replies are

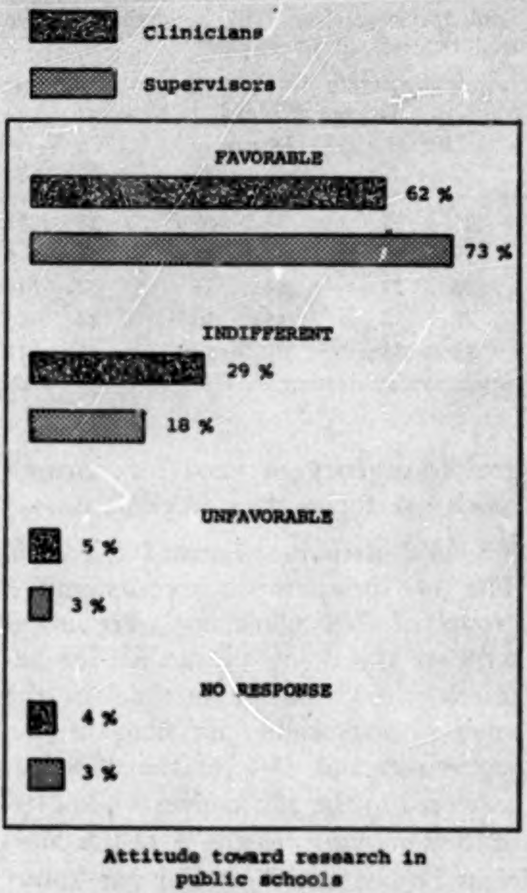

FIGURE 10-2. Attitude of public schools toward research on public school speech and hearing problems as reported by nationwide sample of 757 clinicians and 141 supervisors.

summarized in Table 10-4. Less than 5% feel that school systems should not encourage clinicians to do research.

In the sample of 30 speech and hearing personnel questioned intensively, 90% showed an interest in research and a willingness to participate in research activities. They felt that administrators and teachers would be cooperative in research projects, particularly if the research were conducted by the regular speech and hearing personnel; only 50% of the group would anticipate cooperation if the research were conducted by outside full-time research workers or graduate students. Half of the group also felt that there might be legal problems involved in the conduct of research, particularly if some children were denied services that otherwise would be available to them.

This more detailed survey of a small group reflected the same attitudes of interest and cooperation toward research activities that were evident among the supervisors and larger groups of clinicians who completed the questionnaires.

Future Research

The National Survey has demonstrated beyond question that research activity in the public schools can and must be intensified. Many of the unanswered questions and the unsolved problems revealed by the data of the

TABLE 10-4. Percentages of clinicians and supervisors indicating ways in which school systems should encourage clinicians to do research.

Method of Encouragement	*Clinicians (N = 757)*	*State Supervisors (N = 40)*	*Local Supervisors (N = 101)*
Allocation of time	21	13	29
Allocation of budget	1	0	0
Allocation of time and budget	69	68	55
No encouragement should be offered	3	5	6

survey require systematic research to provide answers. 40

Not all questions that need to be answered can be answered by means of research. However, descriptive research can accumulate factual data, and it is evident that a body of facts concerning current practices must be accumulated in greater detail if meaningful conclusions are to be possible. Some descriptive studies can be conducted with data already in the records of school systems. Other studies will require the development of systematic means of obtaining and recording new types of information about the children, the program, and the personnel. In many instances descriptive data are needed before experimental studies can be designed. Experimental studies that test certain hypotheses are probably less feasible than descriptive studies, but these should be attempted wherever possible. In connection with some problems it may be necessary to conduct opinion research in order to establish which practices are considered most desirable by professionally trained persons.

The logical laboratory for research is the public schools themselves. Too often when research has been concerned with public school children, the school has been used only as a convenient place to meet the children to be studied. Future research needs to be focused on the children as they function in public school situations. The entire school program must receive research consideration.

Research activities will require the allocation of time and budget if they are to be undertaken by public school speech and hearing personnel. Although some research projects can be undertaken by public school personnel, the scope of the problems suggests the need for full-time research workers, research coordinators, and a central agency for reporting research in progress.

Although all possible areas of needed research cannot be outlined here, four general areas are suggested and discussed below in which research might reasonably be expected to resolve some of the issues identified in the National Survey:

a. Which children shall be selected to receive clinical services as opposed to classroom instruction?
b. What are the most effective types of program organization and remedial procedures for bringing about maximal use of speech and hearing abilities?
c. What should be the duties of speech and hearing personnel? What relationships must exist between speech and hearing personnel and other school and community personnel in order that speech- and hearing-handicapped children may receive the most effective assistance?
d. What qualities should exist in programs designed to recruit, train, and supervise speech and hearing personnel for public school situations?

These areas are not mutually exclusive. Research directed toward one area will have implications for other problem areas.

Caseload Selection. In order to determine which children should be selected for clinical services, it is necessary to develop tools for objective measurement. Although hearing tests are fairly well standardized, there is a need for more uniform and reliable methods for measuring speech. In connection with the development of standardized tests, especially in speech, there is a need for normative research. Normative data are necessary as a basis for selection of children for clinical services. Especially necessary are longitudinal studies tracing the speech and language development of the same children through the primary grades and beyond. Prognostic studies of factors related to speech development and progress during therapy would also yield useful criteria for the selection of children for speech and hearing services.

More precise measuring instruments are also needed to describe and evaluate changes in speech behavior that occur during the application of clinical services or classroom instruction, or through the process of maturation. Research is also needed to determine what other aspects of child or parental behavior (language, personal adjustment, social adjustment, etc.) should be evaluated in relation to the effectiveness of speech and hearing services.

Relative Effectiveness of Alternative Methods. Research on the effectiveness of different kinds of program organization is urgent. How often should children receive speech or hearing instruction? How long should therapy sessions last? What is the relative effectiveness of individual and group therapy for different age levels and degrees of severity of speech or hearing problems? How many children should be in the group? Should clinical services be continuous, or should they be intensive but intermittent? While experimental studies are desirable, it is equally important to undertake descriptive studies of changes in speech behavior which occur under different types of program organization. Studies should not be limited to current organizational practices. It is possible that the potentially most effective program organization is one that has not been tried.

Although the National Survey has revealed that many different remedial procedures are used with varying frequencies, no data regarding the degree of effectiveness of these procedures exist. Descriptive studies of the responses of children to specific remedial procedures and experimental studies of the relative effectiveness of different methods are essential. These studies should relate to speech improvement procedures as well as to clinical procedures.

In connection with both program organization and selection of remedial procedures, comparative studies of the relative benefits of speech improvement vs. clinical programs for different age levels and degrees of speech or hearing handicap should be undertaken. In this connection it would also be helpful to study the effectiveness of a combined speech improvement and clinical program for children with more severe speech and hearing problems.

Studies of the length of time children are enrolled for clinical services and of the criteria established for dismissal are necessary. The present study has revealed that one-third of the children in an average total caseload are released during the year as no longer needing therapy. However, no data are available on the length of therapy required by the remaining two-thirds of the children. Follow-up studies of children who have received clinical assistance in the past would provide useful data. Intensive studies are needed of children who seem to make little or no progress after a number of years of clinical attention.

In comparative or descriptive studies of program organization and administration, budgetary considerations should receive attention. Of particular interest would be data on the per-pupil cost of different types of scheduling and caseload as related to the length of time required to dismiss children with different types of disorder and different degrees of severity. For instance, the hypothesis that a smaller caseload, with more frequent meetings of the children each week, would result in greater effectiveness and lower per-pupil cost could be tested in a research study.

Personnel Problems. What duties should speech and hearing personnel in public school situations perform? How should they spend their time? While it would appear obvious that the major task is to help children communicate more effectively, there is no agreement on the details of job definition for clinicians, supervisors, and administrators. Research can help to clarify some of these issues.

In the area of professional relationships, information must be obtained from speech and hearing personnel concerning the assistance they desire from allied professions in the school and the community. Conversely, allied personnel can indicate the assistance they are prepared to render to the speech- and hearing-handicapped. Another aspect of professional relationships is the image of remedial speech and hearing held by other professions. A study of the attitudes of other professions toward speech pathology and audiology might suggest specific approaches to problems of interprofessional relationship. Pilot programs by interdisciplinary teams could be developed and evaluated.

Recruitment and Training. The qualities required in programs designed to recruit and train speech and hearing personnel can be determined only partially by research. Research dealing with recruitment of personnel is complex because of the variety of potentially useful recruiting procedures and the variety of motivations individuals have for entering the speech and hearing field. However, more detailed reporting of recruiting activities and the results of these activities would be useful. A follow-up study of persons active in the field compared with those who have left the field might provide helpful information about recruiting procedures.

Correlated with both recruitment and training is the need for establishing criteria for selecting students for training. Data are needed on the admission requirements, both academic and personal, of training institutions. Aptitude tests need to be developed which will help ensure that students with the best potential are selected for training.

Training programs also need guidance from research data with regard to the proportion of curricular time that should be devoted to background and methods courses dealing with the various types of speech and hearing disorder. Data obtained in the National Survey relative to the proportions of various disorders comprising the typical caseload in public school programs suggest that consideration should be given to the amount of time spent on voice disorders, organic disorders, and stuttering. These problems constitute only a small proportion of the caseload; how large a proportion of the student's total training time do they warrant? It would also seem necessary to determine the proportion of time that should be spent in clinical practicum in public school and clinical settings. An evaluation of the effectiveness of these two settings for training public school speech and hearing personnel is needed.

Also worthy of research is the matter of in-service training for speech and hearing personnel and for classroom teachers and other school personnel. What kind of training is needed? Who should conduct the training? What is the role of the local or state supervisor and the training institution in in-service training?

In the area of supervision, further study of the most profitable activities of supervisors is needed. With the expansion of speech and hearing services, more supervisory positions are being created at city, county, and state levels. Research can help clarify the roles of supervisory and administrative personnel.

Priority of Needed Research. Following this survey of the various areas in which research is needed, the members of Work Group IX agree that the highest priority should be given to research on the following three topics:

a. Collection of longitudinal normative data on speech, with special reference to articulation, voice, and fluency characteristics.

b. Comparative studies of program organization, including evaluation of the number of times sessions are held weekly, combinations of intensive and less intensive therapy, and the block system of scheduling.

c. Comparative studies of the use of different remedial procedures with children of various ages presenting different types of disorders.

The group agree that high priority should be given to research on the following six topics:

a. Development of standardized tests of normal and impaired speech and voice.

b. Development of criteria for selection of primary grade children for inclusion in clinical programs.

c. Comparative studies of speech improvement and clinical programs.

d. Comparative studies of the effectiveness of group, individual, and combined group and individual therapy programs.

e. Studies of children's language usage, personal adjustment, and social adjustment in relation to changes in speech during participation in therapy programs.

f. Comparative studies of different curricula and clinical training programs for prospective public school speech and hearing personnel.

Creation of a Data Bank. The obvious need for extensive, systematically obtained data on all aspects of public school speech and hearing services suggests that steps should be taken to develop a central agency for the collection of such data. Through the use of standard forms for reporting details concerning speech and hearing programs and the children with speech and hearing disorders who participate in these programs, a central data bank could collect data in quantity which would be useful in resolving many present problems and in providing information on the basis of which hypotheses can be formulated and tested.

Summary

Research activities related to public school speech and hearing services have been more extensive than was originally assumed. Public school personnel are currently engaged in certain types of research, especially in research descriptive of incidence and caseload characteristics. The attitude of public school personnel toward research and their desire to cooperate in research undertakings are favorable signs.

The problems demanding descriptive or comparative research are legion. They embrace all aspects of diagnosis, remedial procedure, program organization, administration, supervision, recruiting, training, and professional relationships. Research problems are everywhere, and public school personnel are looking for their solution. Encouragement and guidance are needed. This encouragement should be both financial and professional. Full-time qualified research personnel are needed to provide guidance for the less sophisticated and to conduct carefully designed research. As both short-term and longitudinal studies are designed and carried to completion, it is reasonable to expect continued progress in increasing the quality and effectiveness of public school speech and hearing services.

XI. Summary: New Horizons

THEODORE D. HANLEY

FREDERIC L. DARLEY

From fragmentary references in ancient manuscripts it is clear that something like speech correction has existed as an art, practiced by many different kinds of people, since—at least—several centuries B. C. As a profession, and particularly as a profession practiced by people who have been subjected to a relatively common core of learning experiences, speech correction or speech pathology has been recognized in America for a bare half-century.

The unplanned offspring of the need for help and the need to serve, speech correction has reared itself in a happenstance manner, responsive to this influence or growth pattern here, to that legislation or bureaucratic edict there. Such semblance of unity and consistency as could be detected by the critical observer evidently appears to be attributable to four influences:

(a) A limited but growing body of excellently written textbook material, to which a large proportion of clinicians-in-training is exposed.

(b) A limited group of outstanding teachers and training institutions, early in the history of the profession, from which spread outward, ripple-like, techniques and points of view.

(c) A vigorous, growing professional society, the American Speech and Hearing Association, in the meetings of which have been reported the successes and failures in clinical practice that provide solid ground for retention of old techniques or adoption of new.

(d) First one professional journal, then more, that have served essentially the same purposes as the meetings of the professional association.

Notwithstanding the unifying influences, there have been, inevitably, divisive forces at work, too. Mature, responsible speech clinicians and supervisors and teachers of speech clinicians, recognizing the existence of common and contrasting conditions in professional practice, particularly in the public schools, called for an objective, massive inquiry into the operational details of the profession, viewed both macroscopically and microscopically, in general philosophy and in practical application. The preceding ten chapters are evidence that such a study has been made. It is no longer necessary for the speech clinician in Walla Walla to confess that he knows little of the practice of his profession in the public schools

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of Vero Beach. The data have been collected and the most significant of them have been reported here.

Such data collection and reporting are looked upon as solid accomplishments; the report can end without apology with the summary statement from the last Work Group. But perhaps something more can be added, a glimpse of some new horizons or a sharper view of the horizons within misty sight. Perhaps the profession can step off more confidently toward new horizons if a critical review of the states of affairs described in preceding pages is made. Clearly this editorial function cannot be exercised by anyone to the satisfaction of all. The present writers undertake it somewhat reluctantly and with strong convictions about the limitations which should be applied to conclusion-drawing. The objective is to provide editorial comment on a small number of findings reported by each Work Group and perhaps by so doing to stimulate the reader to draw some conclusions for himself. These are findings which appear to merit special attention.

The emphasis in the paragraphs that follow upon points which suggest weakness or lack of information or need for decisive action should not be interpreted as implying that the Survey has discovered nothing to praise. On the contrary, the preceding pages speak eloquently of astonishing professional growth; of heart-warming devotion to duty on the part of clinicians, supervisors, and teachers; of a developing self-concept which includes capacity for self-criticism and thirst for new and better ways to achieve better understood goals. The personnel involved in public school speech and hearing programs deserve sincere congratulations for solid achievement in the past and for the desire to attain even more in the future.

The Clinician

Work Group VIII, concerned with delineation of the typical public school clinician's job and his professional relationships, found him to be relatively young in years and in experience, only fairly well paid, operating almost independently of supervision in spite of possessing little training beyond the baccalaureate level, burdened with a large caseload of children with complex problems to be analyzed and treated. In a conscientious effort to serve the children and the school adequately, he devotes long hours to therapy and confers profitably with other school personnel, parents, and personnel of outside agencies. But he is not happy about the size of his caseload or the limited amount of time he can spend with each child per week, nor is he happy about the space assigned to him to work in or the equipment and materials given him to work with or the salary given him as a reward for his labors. In 1961 the public school clinician is making a heroic effort, all too often almost alone, to meet children's needs abundantly manifest around him, trying to be professional although handicapped by inadequate accommodations, materials, and time and by the lack of some of the status symbols which his professional associates understand and respect.

What will be the description of the typical public school clinician of 1971 and 1981? If 10 and 20 years hence he is competently to bear the responsibility he is now expected to bear, and if he is to possess the professional status which the bearer of such responsibility deserves to possess, at least two things should happen: (a) the training he receives before he undertakes the job should be made broader and deeper than it has been so that he can with greater maturity, authority, and independence analyze the problems, make the decisions, and negotiate on an equal standing with professional persons in other disciplines—do everything, in fact, that the job of speech clinician denotes; and (b) the profession as a whole should increase the energy and effectiveness of its efforts to inform other professions of what it stands for, what it can do, why it should stand independently. It should increasingly demonstrate that it renders first-rate service; it should increasingly command respect through top-notch scholarship, discriminating professional standards, and professional conduct of the highest ethical character.

Supervision

The findings of Work Group IV regarding the supervision of speech and hearing programs show that a crucial role in this great stride forward will be played by local and state supervisors. These are people of broad and long experience who bring to their work insights gained in general and special education and in the ranks as speech and hearing clinicians. Their voices will be heard importantly as steps are taken to revise standards upward and extend services to more and more children who need them.

The facts concerning present operating procedures suggest significant lack of uniformity in the carrying out of supervisory responsibilities. Practices with regard to direct observation and guidance of clinicians vary widely, some relatively inexperienced clinicians reporting that they receive only token supervision. There are indications that some supervisors do not receive information of sufficient scope and detail to permit effective program evaluation and enlightened program planning.

Local problems require local solutions, but the most basic and persistent problems are probably encountered in all geographic regions and localities. There is rich opportunity for sharing of experience at supervisory levels and more general adoption of those procedures proven by local experience to be effective.

Program Organization and Management

The report of Work Group III makes the 'mechanics' of program operation emerge dramatically as being anything but mechanical. Just as the ability and training of the individual clinician constitute limiting factors in the effectiveness of a program, so the structure of the program itself can make for success in realization of its goals or doom it to failure. Only two items related to program organization and management will be selected for comment.

How large shall the caseload be? Clearly much research is necessary, as the members of Work Group III state, before a definitive answer to this question is obtained. But although the specific figure is not known, a basic principle which bears on the size of that figure is known and is expressed in the Code of Ethics of the American Speech and Hearing Association: the service rendered must be conducive to maximum improvement in minimum time without harm to the children receiving the service. The caseload size should be adjusted, then, to permit the clinician to provide service of a quality that can be considered professionally acceptable. Adjustments should be made so that those children who have genuine speech problems, who are genuinely speech-handicapped, will receive the specialized help the trained clinician is equipped to give. And only such numbers of these children should be accepted for this clinical attention as will permit the clinician and his supervisor to say in good conscience that the diagnosis was thorough enough, the case analysis comprehensive enough, the family contact constant and effective enough, the appropriately applied remedial procedures intensive enough to constitute professionally acceptable service.

When one reads that over 80% of the public school clinician's typical caseload consists of children with functional articulation problems, one might conclude that the clinician best equipped to work in the schools is one whose college courses and practicum experiences have been largely confined to such problems. But the facts remain that within the schools clinicians will find and be expected to work with other types of problems, and their work with them should be of no lower caliber than their work with functional articulation problems; that public school clinicians engage in private practice and do not confine their private caseload to problems of articulation; that public school clinicians change jobs and sometimes accept opportunities to work in hospitals, treatment centers, and community clinics whose caseloads may consist largely of other than articulation problems; and that the first obligation of training programs is to teach clinicians-to-be how to help speech-impaired *persons*—not particular kinds of persons in particular settings. This is not to say that a significant emphasis upon articulation problems in training programs is not desirable; stress on these problems should be embedded in programs of training that are broad enough and deep enough to produce clinicians able to operate as wise and independent 'general practitioners.'

Diagnosis and Measurement

Two factors emerge most importantly from the report of Work Group II. The first of these is based upon data collected, the second upon a conspicuous absence of information. With respect to the former, it it noted that substantial numbers of public school clinicians are denied information about their children. Whether this is willful self-denial, denial attributable to overload or supervisional policy, or denial for some other reason, the fact is that many clinicians do not ever see the parents of some of their children, and many never see their children outside the sheltered environment of the 'speech teacher's room.' In a considerable number of instances the decision to see or not to see the parents is apparently made with degree of severity of speech handicap as the criterion, surely an example of illogical reasoning. Why is it more likely that cues relating to cause and possible approaches to treatment should present themselves in visits to homes of severely handicapped children than in visits to homes of the mildly or moderately handicapped? And what is the significance of a 95% successful production of /s/ in the clinician's room if nothing but hearsay evidence attests to similar success in the classroom? Surely training institutions and supervisors should make the matter of professional insulation a subject of inquiry and action.

As to the second factor to emerge, the need for information mentioned above, in the course of this study very little has been learned about what—operationally—constitutes diagnosis and measurement in public school practice. Doubtless the Survey's major instrument of data collection is partly at fault here; at best a check-sheet is a poor substitute for on-the-spot information, collected by observation or open-ended interview techniques. If the image of the speech clinician is to be viewed with clarity, much remains to be discovered about this aspect of his work. What specifically is his training in diagnosis? What are the sequential steps he follows? What objective measures does he employ? What subjective measures? What validity and reliability checks? The need for research is evident and urgent.

Remedial Procedures

With the substitution of a small number of words, the editorial comments applied to the findings of Work Group II might be used verbatim for those of Work Group I. Consistent with the insulation from parents reported in connection with diagnostic procedures is the insulation reported in connection with remedial work, except that in the latter case it is even more startling. Thirty per cent of respondents make use of parent guidance for stuttering only 'sometimes'; 11% make less frequent use than 'sometimes' of this most critical approach. At that, parent guidance is the only suggested procedure on which a simple majority of clinicians could agree to use 'often' in treating stuttering. The same scatter of responses found in this diagnostic category is also found strikingly in the organic disorders and significantly in all the other categories. Patently, two things are needed: (a) more and better research on the relative effectiveness of the various methods and (b) more effective dissemination of the information gleaned from this research.

The absence of operational information noted with regard to diagnosis and measurement is worthy of comment here also. It is known what clinicians *checked* as being favorite procedures, but it is not known precisely what they *meant*. Research in depth on the matter of what public school clinicians do from hour to hour and from minute to minute should further clarify the image.

Speech Improvement

Work Group V has shown how some school systems have tried to meet two *realities*: (a) the needs of children to overcome speech and voice problems, however major or minor, and (b) the limited time trained clinicians have available. The solution has taken the form of speech improvement programs, conducted by classroom teachers with the guidance of clinicians.

There is no justification for viewing speech improvement as a threat to remedial speech programs. It is not a substitute for the skilled work of a trained specialist with children who are significantly handicapped by speech or hearing impairment; it is rather a device that permits the trained clinician to apply and concentrate his skills upon these children while the classroom teacher conducts constructive speech activities calculated to help all children communicate more effectively orally and certain children overcome minor speech and voice deviations. Work Group V makes no suggestion that the clinician should give up his special function and usurp the function of the classroom teacher, spending all his time conducting speech improvement activities in the classroom. He is visualized, rather, as a consultant and a provider of in-service training to teachers, as a designer of the speech improvement curriculum, and as a coordinator of speech improvement with both the regular curriculum and the remedial speech and hearing program.

The implementation of effective speech improvement programs in close relationship to remedial speech programs brings within the realm of possibility the dream of adequate speech help for all children and suggests that the total number of highly trained clinicians needed to deal with speech- and hearing-handicapped children can be scaled down to a finite number. Remedial speech personnel have accomplished much of what has already been accomplished in building speech improvement programs, and they are convinced that these programs have materially helped children with minor speech and voice deviations and have decreased the number of children requiring speech therapy. It behooves the profession, then, to take a positive view of speech improvement as delineated by Work Group V and consider carefully how it can integrate speech improvement into a total remedial program. Speech improvement deserves better than to be treated as a step-child or an unwelcome relative. The American Speech and Hearing Association should acknowledge the splendid contributions of speech improvement and should provide leadership in setting up standards for the establishment and operation of programs and for preparation of personnel.

Professional Standards and Training

Work Group VI concerned itself with certification, licensing, and certain facets of the training of clinicians. Like the other groups, Group VI found the expected in some of its areas of interest, the surprising and disturbing in others. A fact brought out by the study, but apparent also to anyone who takes the trouble to leaf through the pages of the ASHA Directory, is the failure of the ASHA program of clinical certification. This blunt conclusion requires modification to this extent: the failure is a numerical one, with only one clinician in four holding the Basic Certificate and fewer than three in 100 the Advanced. The extent to which the certification program has upgraded training programs and employment requirements was not investigated.

State licensing for private practice, about which not much was learned since little information was available, seemed not to generate much excitement among respondents, despite the fact that more than half of public school clinicians engage in limited amounts of private practice. This is a matter of concern both for the public at large and for the ethical, well-trained clinician who may find himself in competition with quacks.

Probably the most significant findings of Group VI were in the area of training, where a noteworthy consistent thread could be discerned: the expression of need for more training and training in a limited number of specific subjects. More than 90% of respondents assert that graduate training is at least desirable, if not essential, and a majority of them favor a five-year minimum training requirement for a speech and hearing certificate. Not only more training but better training is needed in such subjects as group therapy, diagnosis, and parent counseling, a finding that reinforces observations made by work groups concerned with diagnosis and remedial procedures. Further reinforcement is found in reports from the training institutions indicating that insufficiency of staff for supervision of practicum (for example, diagnosis, group therapy, counseling) is one of the larger problems. In sum, there is good reason to believe that many speech clinicians enter the profession ill-equipped to cope with some of the most elemental and pressing problems they will face. Whether the remedy for this situation should be more training, better training, or both is not immediately apparent but it is obvious that corrective steps need to be taken.

Recruitment

Like Sherlock Holmes' observation of the remarkable behavior of a dog that did *not* bark, Work Group VII was most impressed with activity that is *not* going on in recruitment for a seriously understaffed profession. From questionnaire findings and data collected in personal interviews it is clear that no one takes the responsibility for recruitment and so the task is not accomplished. Almost all the standard recruiting devices are effective, it seems. Particularly striking are the results of an experimental precollege workshop at one university. Individual contacts by professional clinicians and clinicians-in-training are effective also. But not enough of these contacts are made. The reasons why are not perfectly clear, but the caseloads of the professionals and the work loads of the students are likely causes.

The Work Group suggests appointment of one or more persons to work at the national level on this problem. The suggestion is also made that state and regional associations of clinicians should more actively participate in efforts of this kind. The first suggestion is worthy of consideration, but dollars-and-cents practicality dulls the likelihood of its implementation. About the second suggestion one can feel more sanguine, particularly if the support of state and local supervisors can be enlisted. With just a little relief from excessive caseload the clinician can afford the time to meet with interested high school students and even take them on as cadet clinicians under certain appropriate conditions. Finally the success of the precollege institute approach commends it to training institutions.

Research

Even as one research project is completed, a variety of possible supplementary research projects come into view. An important result of such a large-scale project as the National Survey of Public School Speech and Hearing Services is the discovery of what areas deserve particular scrutiny because of their crucial importance or because of lack of exact information. A natural outgrowth of this Survey will be a series of more limited, more well-controlled studies designed to answer specific pressing questions. 217

The public schools are a fertile field for research, and school personnel largely favor the conduct of research within the schools. The personnel of Work Group IX studied all the data compiled and all the interpretations of and conclusions from the data reported by the other Work Groups; from this review they distilled a list of three topics for research to which they assign highest priority: (a) the collection of longitudinal normative data on speech, (b) comparative studies of program organization, (with special attention to the frequency, duration, and intensity of therapy), and (c) comparative studies of the use of different remedial procedures with children of various ages presenting different speech, voice, and language problems. They list six other topics to which they assign high priority: (a) development of standardized tests of speech, voice, and language; (b) development of criteria for selection of primary grade children for inclusion in remedial programs; (c) comparative studies of speech improvement and clinical programs; (d) comparative studies of group, individual, and combined group and individual therapy programs; (e) studies of the adjustment of children and their language usage in relation to changes in speech accomplished during participation in therapy programs; and (f) comparative studies of different curricula and clinical training programs for prospective public school speech and hearing personnel.

The carrying out of each recommended piece of research will help the profession know more precisely what problems it faces, what it is doing about them, what results issue from its actions, what it should do differently, and why. Increasingly the labors of devoted public school speech and hearing clinicians and supervisors can be sharpened in focus, trimmed of wasted effort. The day can come when a much greater uniformity characterizes program planning and program execution, when decisions are made not because they were made that way before or because somebody decreed that they be made that way but because the data indicate that the decisions are sound.

• • • •

The prodigal cooperative effort of hundreds of clinicians, supervisors, classroom teachers, and training institution personnel has resulted in this report of the National Survey of Public School Speech and Hearing Services. People deeply involved in school programs willingly and without any attitude of defensiveness have taken a long look at what they are doing and have expressed their opinions about it. Thus growth is nurtured. As more such constructive steps are taken, the goal can be approximated ever more closely: effective professional help for every speech- and hearing-impaired child in the United States.

Appendix A

Two-dimensional Chart Indicating the Tentative Charge to the Work Groups

Subjects	Column Headings								
	Description of Current Trends	Agreement in Status	Evaluation of Current Status By S&H By Others	Basis for Current Status	Literature All Sources	Desired Changes and Reasons	Legal Aspects	What Problems Are Researchable—Order of Priority	Problems Solved by Professional Judgment
Administration									
Facilities									
Budget									
Measurement									
Professional Relations									
Time-Scheduling									
Standards & Training									
Etc.									

Appendix B

Questionnaire I-A for Public School Speech and Hearing Personnel

NATIONAL SURVEY OF PUBLIC SCHOOL SPEECH AND HEARING SERVICES

Co-sponsored by

United States Office of Education

Purdue University

American Speech and Hearing Association

QUESTIONNAIRE I-A
for
PUBLIC SCHOOL SPEECH AND HEARING PERSONNEL

TERMINOLOGY: Technical and professional terms used in this questionnaire were provided by the field personnel who submitted items. Preferences for other nomenclature are recognized, but space considerations prohibit the listing of alternative terms.

> The information obtained from this questionnaire will be kept strictly confidential. Your name will be used only to facilitate mailing and to check on the alphabetical randomness of the sample. Otherwise, complete anonymity of response is assured.

DIRECTIONS: Please answer every question. In many cases an "other" alternative is offered in order to assure complete coverage. However, if you need to amplify a response, feel free to write in the margins.

CHECK ONLY ONE BOX for each numbered question and each lettered part of a question, unless the directions specifically indicate, "check all that apply."

1. Name ______________________

2. Your age:

1 ☐ 20-25 3 ☐ 31-35
2 ☐ 26-30 4 ☐ 36-40 5 ☐ Over 40

3. Your title ______________________

Is this title suitable for the work that you do?

1 ☐ Yes
– ☐ No

If No, what title would you prefer?

____

4. What is your salary for the school year?

1 ☐ Under $3500	5 ☐ $5000-5499
2 ☐ $3500-3999	6 ☐ $5500-5999
3 ☐ $4000-4499	7 ☐ $6000-6499
4 ☐ $4500-4999	8 ☐ $6500-6999

9 ☐ $7000 or more

Note: If you work part time check the amount that you would receive if you worked full time; i.e., if you work half-time, just double your salary and check the appropriate box.

5. Do you have a travel allowance?

– ☐ Yes
X ☐ No

If yes, how much is it?

$______

6. What are your duties?

	Regularly	Occasionally	Not at all
(a) Speech therapy	1 ☐	2 ☐	3 ☐
(b) Hearing therapy	1 ☐	2 ☐	3 ☐
(c) Hearing testing	1 ☐	2 ☐	3 ☐
(d) Other*______	1 ☐	2 ☐	3 ☐
(e) Other______	1 ☐	2 ☐	3 ☐

7. GRADE LEVEL DISTRIBUTION OF CASES: Circle the grade in which you have the greatest concentration of students:

K 1 2 3 4 5 6 7 8 9 10 11 12
Special

Now, please go back and cross out all of those grades in which you have no cases.

8. TYPES OF DISORDERS IN YOUR CASE-LOAD: How many students do you now have in each of the following classifications?

(a) Articulation .... ______
(b) Cerebral palsy .... ______
(c) Cleft palate .... ______
(d) Delayed speech .... ______
(e) Hard of hearing........................ ______
(f) Stutterers .... ______
(g) Voice cases .... ______
(h) Other ______ ______

TOTAL........................ ______

* Whenever you indicate "other," please specify.

9. LENGTH OF EXPERIENCE: How many years of paid experience do you have as a speech and hearing therapist?

1 ☐ 1 or less
2 ☐ 2 or 3
3 ☐ 4, 5, or 6
4 ☐ 7, 8, 9, or 10
5 ☐ Over 10

10. EXTENT OF TRAINING: What is the highest level of education you have completed?

1 ☐ College work but no degree
2 ☐ Bachelor's degree
3 ☐ Bachelor's degree and additional graduate work
4 ☐ Master's degree
5 ☐ Master's degree and additional graduate work
6 ☐ Doctorate

11. LOCATION OF TRAINING: Check the type of institution where your highest level of speech and hearing training was received:

1 ☐ Teacher's college or normal school
2 ☐ Liberal arts college, not part of a university
3 ☐ University
4 ☐ Other____________

12. THE NEED FOR GRADUATE TRAINING: How important is graduate training in speech and hearing to the public school therapist?

1 ☐ Essential
2 ☐ Desirable
3 ☐ Unimportant

13. Do you favor a five-year minimum training requirement for a speech and hearing license?

1 ☐ Yes
2 ☐ No

14. TEACHERS' LICENSES FOR THERAPISTS: Do you think that it is important for a speech and hearing therapist to have a teacher's license?

Yes	No
1 ☐	2 ☐

15. SITUATIONS AND CIRCUMSTANCES IN WHICH YOU ARE MOST EFFECTIVE: Check the item in each of the rows, below, that represents the type of situation in which you are most effective:

(a) 1 ☐ Group or 2 ☐ Individual
(b) 1 ☐ Heterogeneous or 2 ☐ Homogeneous
(c) 1 ☐ Primary or 2 ☐ Elementary or 3 ☐ Secondary
(d) 1 ☐ Functional or 2 ☐ Organic

16. THE LOCATION OF CHILDREN WITH SPEECH AND HEARING DISORDERS: With what relative frequency do you employ the following methods?

	Frequently	Occasionally	Rarely
(a) Referral	1 ☐	2 ☐	3 ☐
(b) Survey	1 ☐	2 ☐	3 ☐
(c) Class visitation	1 ☐	2 ☐	3 ☐
(d) Questionnaire or inventory	1 ☐	2 ☐	3 ☐
(e) Other________	1 ☐	2 ☐	3 ☐

17. TIME ALLOTTED FOR SPEECH AND HEARING SCREENING: How many weeks do you usually devote to screening ?

	None	1 to 3	4 or more
(a) Speech	1 ☐	2 ☐	3 ☐
(b) Hearing	1 ☐	2 ☐	3 ☐

18. AUDIOLOGICAL TESTING: Who does the audiological screening and diagnostics in your school system? (If more than one person does the testing, check principle tester only.)

	Speech-Hearing Therapist	Nurse	School Audiologist	Other (Indicate below)
(a) Screening	1 ☐	2 ☐	3 ☐	4 ☐
(b) Diagnostics	1 ☐	2 ☐	3 ☐	4 ☐

If "Other" indicate here________________

19. Are the results of this audiological testing readily available to you?

1 ☐ Yes
2 ☐ No

20. At what grade levels is audiological screening done?

1 ☐ All
2 ☐ Every other grade
3 ☐ Every third grade
4 ☐ Other____________________

21. AUDIOMETRIC SCREENING: What type of hearing screening is done in your school system?

0 ☐ Check here if no such screening is done

(Check all that apply)

		Are you familiar with this type of screening? Yes	No
1 ☐ Recorded descending numbers	(a)	1 ☐	2 ☐
2 ☐ Massachusetts	(b)	1 ☐	2 ☐
3 ☐ Pure tone full frequency sweep check	(c)	1 ☐	2 ☐
4 ☐ Pure tone speech range sweep	(d)	1 ☐	2 ☐
5 ☐ Pure tone Glorig or House, single or dual frequency	(e)	1 ☐	2 ☐
6 ☐ Information is not available to me	(f)	1 ☐	2 ☐

22. AUDIOMETRIC TESTING OF CHILDREN WITH SPEECH PROBLEMS: Are children with speech problems in your system given diagnostic hearing tests?

1 ☐ Routinely
2 ☐ In special cases
3 ☐ Hardly ever

If such tests are given, how often?

1 ☐ Semi-annually
2 ☐ Annually
3 ☐ Other____________________

23. MEDICAL REFERRALS AND HEARING LOSS: Is a medical referral made for children who.

(Check all that apply)

1 ☐ Fail audiometric screening
2 ☐ Display mild loss
3 ☐ Display moderate loss
4 ☐ Display severe loss
0 ☐ No medical referrals are made

24. CLASSROOM TEACHERS AND CHILDREN WITH HEARING LOSS: Are the classroom teachers in your system made aware of those students who show hearing loss on screening and diagnostic tests?

1 ☐ Routinely
2 ☐ Occasionally
3 ☐ Rarely

25. ADMISSION TO THERAPY: Who must approve the admission of a child into your therapy program?

(Check all that apply)
1 ☐ Parent
2 ☐ Physician
3 ☐ Principal
4 ☐ Local Supervisor
5 ☐ Other____________________
0 ☐ No one

26. SCHEDULING OF CHILDREN IN THERAPY SESSIONS: To what extent is your scheduling influenced by each of the following persons:

	Greatly	Moderately	Little or none
(a) Classroom teacher	1 ☐	2 ☐	3 ☐
(b) Special teacher	1 ☐	2 ☐	3 ☐
(c) Principal	1 ☐	2 ☐	3 ☐
(d) Supervisor	1 ☐	2 ☐	3 ☐

27. DETERMINATION OF CASELOAD: Is your caseload limited by:

(Check all that apply)
1 ☐ State law
2 ☐ Local regulations
3 ☐ Number of children with speech disorders
4 ☐ Your own decision

Of those checked, please underline the one that is most important.

28. BLOCK SYSTEM:

	Yes	No
(a) Have you ever used it?	1 ☐	2 ☐
(b) Are you now using it?	1 ☐	2 ☐

If yes to either (a) or (b), evaluate its effectiveness below:

1 ☐ Block system is far superior
2 ☐ Block system is a little better
3 ☐ About the same
4 ☐ Regular scheduling is a little better
5 ☐ Regular scheduling is far superior

29. DISTRIBUTION OF WEEKLY CASELOAD: Please fill in the blanks with the appropriate figures:

	Individual	Group	Do you believe that these numbers approach the ideal? Yes	No
Total number of children seen each week in this type of session	(a)___	(b)___	(c) 1 ☐	2 ☐
Number of minutes for each meeting	(d)___	(e)___	(f) 1 ☐	2 ☐
Number of meetings per week	(g)___	(h)___	(i) 1 ☐	2 ☐
Average size of groups		(j)___	(k) 1 ☐	2 ☐

30. YEARLY CASELOAD: Please give your best estimate of:

(a) The total number of students enrolled in your therapy this year ____________________

(b) The number you will have released (as of the end of this year) because they no longer require therapy ____________________

(c) The number released for other reasons ____________________

31. THE NEED FOR RESEARCH ABOUT CASELOADS: How great is the need for research in order to clarify the relative importance of the following caseload factors?

	Urgent	Moderate	No need
(a) Number of students seen at one time	1 ☐	2 ☐	3 ☐
(b) Number of times per week they are seen	1 ☐	2 ☐	3 ☐
(c) Length of therapy sessions	1 ☐	2 ☐	3 ☐
(d) Block system versus regular scheduling	1 ☐	2 ☐	3 ☐
(e) Homogeneous vs. heterogeneous groups	1 ☐	2 ☐	3 ☐

32. Do you think this type of research would be permitted in your system, assuming it would be done by competent persons?

1 ☐ Yes
2 ☐ No
3 ☐ I don't know

33. NUMBER OF THERAPISTS IN YOUR SYSTEM: What is the most important determinant of the number of therapists in your system?

1 ☐ Budget
2 ☐ Number of children with speech and hearing disorders
3 ☐ Supply of available therapists
4 ☐ Other________________

34. How many years has there been a speech and hearing program in your system?

	Number of years			
	1	2-5	6-9	10 or more
(a) Speech therapy	1 ☐	2 ☐	3 ☐	4 ☐
(b) Hearing conservation	1 ☐	2 ☐	3 ☐	4 ☐

35. How many elementary, junior high and senior high schools in your system?

____

36. How many of these schools do you serve?

____

37. EVALUATION OF VARIOUS ASPECTS OF YOUR PROGRAM: How would you evaluate each of the following:

	Excellent	Adequate	Wanting
(a) Your therapy rooms	1 ☐	2 ☐	3 ☐
(b) Supplies	1 ☐	2 ☐	3 ☐
(c) Equipment	1 ☐	2 ☐	3 ☐
(d) Materials	1 ☐	2 ☐	3 ☐
(e) Your salary	1 ☐	2 ☐	3 ☐
(f) Supervision	1 ☐	2 ☐	3 ☐

38. TIME FOR NON-THERAPY DUTIES: Do you have a scheduled conference, coordination or office period?

– ☐ Yes
O ☐ No

If yes, is it:

1 ☐ A whole day each week
2 ☐ A half day each week
3 ☐ Other________________

39. DISTRIBUTION OF YOUR WORKING WEEK: How much time do you spend each week in each of the following:

(Please give your best estimate)

	Number of hours
(a) Therapy ________	______
(b) Traveling ________	______
(c) Conferences ________	______
(d) Writing reports ________	______
(e) Preparation of lessons________	______
(f) Other ________	______
(g) Your total number of working hours ________	______

40. STUDENTS WITH SPEECH DISORDERS IN DIFFERENT ENVIRONMENTS: Do you try to determine the extent of your students' disorders and the effects of therapy in other speaking situations?

1 ☐ Yes
2 ☐ No

If yes, how do you make the determination and how often is it made?

	Regularly	Occasionally	Not at all
(a) Classroom teacher reports	1 ☐	2 ☐	3 ☐
(b) Parent reports	1 ☐	2 ☐	3 ☐
(c) Classroom visits	1 ☐	2 ☐	3 ☐
(d) Visits to other school activities	1 ☐	2 ☐	3 ☐
(e) Other________	1 ☐	2 ☐	3 ☐

41. YOUR IMMEDIATE SUPERIOR: To whom are you directly responsible for the conduct of your program?

1 ☐ Superintendent of schools
2 ☐ Principal
3 ☐ Director of special education
4 ☐ Supervisor of speech and hearing
5 ☐ Other________________

42. PREVIOUS TRAINING OF YOUR SUPERVISORS: What is the training background of your immediate supervisor?

1 ☐ Speech and hearing
2 ☐ Special education with some speech and hearing
3 ☐ Special education without speech and hearing
4 ☐ Other________________

43. SUPERVISION: How often does your immediate supervisor observe therapy sessions?

1 ☐ Often, at least monthly
2 ☐ Periodically, at least four times a year
3 ☐ Occasionally, one to three times a year
4 ☐ Never

44. SPEECH IMPROVEMENT IN YOUR SYSTEM: Is there a speech improvement program in your system?

1 ☐ Yes
2 ☐ No

If no, skip to question 45.

(a) If yes, is it

1 ☐ Part of the speech and hearing program
2 ☐ Part of the language arts program
3 ☐ A separate program
4 ☐ Other________________

(b) Has it decreased the number of students requiring therapy?

1 ☐ Yes
2 ☐ No
3 ☐ I don't know

(c) What grade levels are involved in this program? (Check all that apply)

1 ☐ Primary
2 ☐ Elementary
3 ☐ Secondary

(d) What is the speech and hearing therapist's relationship to this program? (Check all that apply)

1 ☐ Teach speech improvement classes
2 ☐ Supervise classroom teachers
3 ☐ Other________________

(e) Are you planning any expansion of your program?

1 ☐ Yes
2 ☐ No

45. THE THERAPIST AND THE SPEECH IMPROVEMENT PROGRAM: Do you think speech and hearing therapists should participate in the speech improvement programs in their school systems?

– ☐ Yes
0 ☐ No

If yes, in what capacity?

1 ☐ Consultant
2 ☐ Supervisor
3 ☐ Teacher
4 ☐ Other________________

46. REFERRALS TO OTHER AGENCIES AND INDIVIDUALS: With what frequency do you recommend referrals to the following:

	No such Agency	Frequently	Occasionally	Never
(a) College or Univ. Speech and Hearing Clinic	1 ☐	2 ☐	3 ☐	4 ☐
(b) Other speech and hearing clinics	1 ☐	2 ☐	3 ☐	4 ☐
(c) Other rehabilitation agencies	1 ☐	2 ☐	3 ☐	4 ☐
(d) Medical profession	1 ☐	2 ☐	3 ☐	4 ☐
(e) Psychological services	1 ☐	2 ☐	3 ☐	4 ☐

47. RECORDS OF YOUR STUDENTS: What types of records do you keep for each of your students?

(Check all that apply)

1 ☐ Case history
2 ☐ Individual daily log
3 ☐ Weekly or monthly progress reports
4 ☐ Reports of conferences
5 ☐ Phonetic improvement
6 ☐ Other________________

48. THE RECIPIENTS OF YOUR REPORTS: To whom do you submit reports?

(Check all that apply)

1 ☐ Supervisor of speech and hearing
2 ☐ Special education director
3 ☐ Classroom teacher
4 ☐ Principal
5 ☐ Superintendent
6 ☐ Parents
7 ☐ State department of education
8 ☐ Other________________

49. REPORTS THAT LEAVE YOUR OFFICE: What types of reports do you submit?

(Check all that apply)

1 ☐ Results of speech testing
2 ☐ Results of hearing testing
3 ☐ Schedules of schools and classes
4 ☐ Therapy progress reports
5 ☐ Final reports
6 ☐ Other________________

50. AVAILABILITY OF TESTS AND REPORTS: Are the following readily available?

Reports of:	Routinely	Only in special cases	Not at all
(a) Hearing tests	1 ☐	2 ☐	3 ☐
(b) Vision tests	1 ☐	2 ☐	3 ☐
(c) Health records	1 ☐	2 ☐	3 ☐
(d) Intelligence tests	1 ☐	2 ☐	3 ☐
(e) Achievement tests	1 ☐	2 ☐	3 ☐
(f) Cumulative records	1 ☐	2 ☐	3 ☐

51. THE USE OF INTELLIGENCE TESTING: How do you use the scores obtained from intelligence tests?

(Check all that apply)

1 ☐ Aid in diagnosis
2 ☐ Aid in planning therapy
3 ☐ Other________________
4 ☐ I don't use them

52. THERAPIST CONTACTS WITH PARENTS: Do you think speech and hearing therapists should establish personal contacts with the parents of her students?

1 ☐ All
2 ☐ Most
3 ☐ Only the most severely handicapped
0 ☐ None

53. PROFESSIONAL RELATIONS WITH TEACHERS: Should speech therapists have meetings with the classroom teachers who have pupils with speech problems?

1 ☐ Yes, regularly scheduled meetings
2 ☐ Yes, occasional meetings
3 ☐ Yes, but informally
0 ☐ No

54. YOUR PROFESSIONAL RELATIONSHIPS: How would you classify your professional relationships with each of the following individuals?

	No contacts	Excellent	Satisfactory	Other
(a) Classroom teachers	0 ☐	1 ☐	2 ☐	3 ☐
(b) Principals	0 ☐	1 ☐	2 ☐	3 ☐
(c) Superintendent	0 ☐	1 ☐	2 ☐	3 ☐
(d) School Psychologist and/or guidance counselor	0 ☐	1 ☐	2 ☐	3 ☐
(e) School Nurse	0 ☐	1 ☐	2 ☐	3 ☐
(f) School Doctor	0 ☐	1 ☐	2 ☐	3 ☐
(g) Other speech therapists	0 ☐	1 ☐	2 ☐	3 ☐

55. PROFESSIONAL RELATIONS IN THE SCHOOLS: From whom do you receive the most professional assistance within the school?

1 ☐ School nurse
2 ☐ Psychologist or guidance person
3 ☐ Classroom teachers
4 ☐ Principals
5 ☐ Other________________

56. MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS: Please indicate your membership in speech and hearing associations:

	Yes	No
(a) State	1 ☐	2 ☐
(b) ASHA	1 ☐	2 ☐

If no to (b), have you applied for membership?
3 ☐ Yes
4 ☐ No

57. LICENSE AND CERTIFICATION: Indicate your state license and ASHA Certification.

		ASHA			
	State	Basic applied for	Basic	Advanced	None
(a) Speech	1 ☐	1 ☐	2 ☐	3 ☐	4 ☐
(b) Hearing	1 ☐	1 ☐	2 ☐	3 ☐	4 ☐

58. YOUR TRAINING AND ASHA CERTIFICATION REQUIREMENTS: Did your undergraduate and graduate training provide you with the requisites for "basic certification?"

	Yes	No	I don't know
(a) Course work	1 ☐	2 ☐	3 ☐
(b) Certified sponsors	1 ☐	2 ☐	3 ☐

59. THE DISCUSSION OF PROFESSIONAL ORGANIZATIONS IN YOUR TRAINING: Were these aspects of ASHA discussed in your training program?

	Yes	No
(a) Certification requirements	1 ☐	2 ☐
(b) Significance of a national professional organization	1 ☐	2 ☐
(c) ASHA Code of Ethics	1 ☐	2 ☐
(d) The Journal(s)	1 ☐	2 ☐

60. MEMBERSHIP IN AMERICAN SPEECH AND HEARING ASSOCIATION: What is the attitude of your supervisor(s) about therapists' membership in ASHA?

1 ☐ Membership is required
2 ☐ Therapists are encouraged to join
3 ☐ General indifference

61. ATTENDANCE AT PROFESSIONAL MEETINGS: Does your administration furnish you time and/or money to facilitate your attendance at meetings of speech and hearing organizations?

For attending Meetings of:	Released time and funds	Released time only	Nothing
(a) State Speech and Hearing Association	1 ☐	2 ☐	3 ☐
(b) Regional Speech and Hearing Association	1 ☐	2 ☐	3 ☐
(c) ASHA Convention	1 ☐	2 ☐	3 ☐

62. SALARY INCREMENTS: Which of these factors affect annual raises in salaries of therapist(s) in your system?

(Check all that apply)

1 ☐ Length of experience
2 ☐ Degrees
3 ☐ Certification
4 ☐ Case Load
5 ☐ Merit
6 ☐ Other____________________

Please underline the most important factor.

63. YOUR ROLE IN CONSTRUCTING THE SPEECH AND HEARING BUDGET: What are your budgetary responsibilities?

1 ☐ I compose the budget
2 ☐ It is composed by my supervisor or administrator after I have been consulted
3 ☐ It is composed by my supervisor or administrator without my being consulted

64. BUDGETARY CONSIDERATION FOR PROFESSIONAL NEEDS: Is there any provision for reimbursement to the therapist for the following?

(Check all that apply)

1 ☐ Professional books
2 ☐ Professional organization fees
3 ☐ Convention expenses
4 ☐ Professional training

65. OVERALL THERAPIST, SPACE AND BUDGET NEEDS: Are you able to evaluate the needs of speech and hearing therapy in your system for next year?

– ☐ Yes
X ☐ No

If yes, please give estimates of:

(a) How many more therapists could your system use next year in order to take care of all children with speech and hearing disorders? ________________

(b) How many more rooms would be required? ________________

(c) How much additional money would be needed?________________

(d) What is your total budget for this year including salaries, supplies, equipment, etc.?________________

66. WAITING LIST: Approximately how many additional students would be in speech and hearing therapy under optimum conditions?________________

Note: If you are in a large city system, and are unable to make an estimate, please put an X in the above space.

Appendix C

Questionnaire I-B for Public School Speech and Hearing Personnel

NATIONAL SURVEY OF PUBLIC SCHOOL SPEECH AND HEARING SERVICES

Co-sponsored by

United States Office of Education	**Purdue University**	**American Speech and Hearing Association**

QUESTIONNAIRE I-B
for
PUBLIC SCHOOL SPEECH AND HEARING PERSONNEL

TERMINOLOGY: Technical and professional terms used in this questionnaire were provided by the field personnel who submitted items. Preferences for other nomenclature are recognized, but space considerations prohibit the listing of alternative terms.

> **The information obtained from this questionnaire will be kept strictly confidential. Your name will be used only to facilitate mailing and to check on the alphabetical randomness of the sample. Otherwise, complete anonymity of response is assured.**

DIRECTIONS: Please answer every question. In many cases an "other" alternative is offered in order to assure complete coverage. However, if you need to amplify a response, feel free to write in the margins.

CHECK ONLY ONE BOX for each numbered question and each lettered part of a question, unless the directions specifically indicate, "check all that apply."

FIRST PART

1. Name ______________________

2. Your age:

1 ☐ 20-25 3 ☐ 31-35
2 ☐ 26-30 4 ☐ 36-40 5 ☐ Over 40

3. Your title ______________________

Is this title suitable for the work that you do?

1 ☐ Yes
– ☐ No

If No, what title would you prefer?

____

4. What is your salary for the school year?

1 ☐ Under $3500
2 ☐ $3500-3999
3 ☐ $4000-4499
4 ☐ $4500-4999
5 ☐ $5000-5499
6 ☐ $5500-5999
7 ☐ $6000-6499
8 ☐ $6500-6999
9 ☐ $7000 or more

Note: If you work part time check the amount that you would receive if you worked full time, i.e., if you work half-time just double your salary and check the appropriate box.

5. Do you have a travel allowance?

– ☐ Yes
X ☐ No

If yes, how much is it?

$__________

6. What are your duties?

	Regularly	Occasionally	Not at all
(a) Speech therapy	1 ☐	2 ☐	3 ☐
(b) Hearing therapy	1 ☐	2 ☐	3 ☐
(c) Hearing testing	1 ☐	2 ☐	3 ☐
(d) Other__________	1 ☐	2 ☐	3 ☐
(e) Other__________	1 ☐	2 ☐	3 ☐

7. GRADE LEVEL DISTRIBUTION OF CASES: Circle the grade in which you have the greatest concentration of students:

K 1 2 3 4 5 6 7 8 9 10 11 12 Special

Now go back and cross out all of those grades in which you have no cases.

8. TYPES OF DISORDERS IN YOUR CASELOAD: How many students do you have in each of the following classifications?

(a) Articulation .... ________
(b) Cerebral palsy .... ________
(c) Cleft palate .... ________
(d) Delayed speech .... ________
(e) Hard of hearing.................... ________
(f) Stutterers .... ________
(g) Voice cases .... ________
(h) Other ________________ ________
Total.................... ________

9. LENGTH OF EXPERIENCE: How many years of paid experience do you now have as a speech and hearing therapist?

1 ☐ 1 or less
2 ☐ 2 or 3
3 ☐ 4, 5 or 6
4 ☐ 7, 8, 9 or 10
5 ☐ Over 10

10. How many different positions have you held?
(a) As a speech and hearing therapist

1 ☐ One 2 ☐ Two 3 ☐ Three
(b) Other types of positions
4 ☐ Four or more
1 ☐ One 2 ☐ Two 3 ☐ Three
4 ☐ Four or more

11. How many years have you spent in your present position?

1 ☐ One
2 ☐ 2 or 3
3 ☐ 4, 5 or 6
4 ☐ 7, 8, 9 or 10
5 ☐ 11 or more

12. PREVIOUS EMPLOYMENT: Have you ever been employed as a regular classroom teacher?

	Yes	No
(a) Elementary	1 ☐	2 ☐
(b) Secondary	1 ☐	2 ☐

13. DECISION TO BECOME A SPEECH AND HEARING THERAPIST: When did you decide to become a speech therapist?

1 ☐ Before entering college
2 ☐ During your first year of college
3 ☐ After your first year but before graduation
4 ☐ After graduation

14. Did a particular individual influence you to become a speech and hearing therapist?

– ☐ Yes
O ☐ No

If yes, who was this individual?

1 ☐ A friend who was studying or had studied to be a therapist
2 ☐ A speech and hearing therapist in a school you attended
3 ☐ High School counselor
4 ☐ College counselor (or advisor)
5 ☐ Other____________________

15. Do you or have you ever had a speech disorder?

– ☐ Yes
0 ☐ No

If yes, did it influence your vocational aims?

1 ☐ Yes
2 ☐ No

16. YOUR EVALUATION OF THE TRAINING YOU RECEIVED: Please indicate your evaluation of each of the following aspects of your training: (For each lettered item, check one under theory and one under practice)

	THEORY			PRACTICE		
	Good	Fair	Poor	Good	Fair	Poor
(a) Articulation	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
(b) Stuttering	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
(c) Voice disorders	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
(d) Cleft Palate	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
(e) Cerebral Palsy	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
(f) Hearing testing	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
(g) Normal speech and language development	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
(h) Organization and management of public school program	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
(i) Scheduling	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
(j) Professional relations	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
(k) Child growth and development	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐

17. **TRAINING IN GROUP THERAPY:** What part of your practical training was devoted to working with groups?

1 ☐ Three-fourths or more
2 ☐ About one-half
3 ☐ One-fourth or less
0 ☐ None

18. **YOUR TRAINING IN WRITING REPORTS, PLANS, ETC.:** Did you prepare the following in your training?

	Routinely	Occasionally	Not at all
(a) Lesson plans	1 ☐	2 ☐	3 ☐
(b) Written evaluations of therapy procedures	1 ☐	2 ☐	3 ☐
(c) Progress reports	1 ☐	2 ☐	3 ☐
(d) Diagnostic reports	1 ☐	2 ☐	3 ☐
(e) Summary reports	1 ☐	2 ☐	3 ☐

19. **SUPERVISED TEACHING DURING YOUR TRAINING:** Indicate which of the following were included in your speech and hearing training:

(Check all that apply)

1 ☐ Regular classroom practice teaching
2 ☐ Public school speech therapy
3 ☐ Speech clinic practicum
0 ☐ None

20. **YOUR TRAINING IN OTHER AREAS:** What single area of training, besides speech and hearing, has been of most value to you?

1 ☐ General speech
2 ☐ Special Education
3 ☐ General Education
4 ☐ Psychology
5 ☐ Other________________________

21. **RECRUITMENT OF PROSPECTIVE THERAPISTS:** Do you do anything in your community to acquaint high school students with the speech and hearing profession?

– ☐ Yes
O ☐ No

If yes, what do you do?

____

____

____

22. **LESSON PLANS:** Which of the following approaches to the preparation of lessons for your students do you employ?

1 ☐ Informal lesson plans
2 ☐ Plans written in advance by yourself
3 ☐ Those suggested and/or prepared by your supervisor
4 ☐ Other________________________

Now, please underline the one you use most often.

23. **YOUR FUTURE PLANS:** What are your plans for the next five years?

1 ☐ Continue as a public school speech and hearing therapist
2 ☐ Return to school for graduate work
3 ☐ Secure another educational position such as administration, teaching, etc.
4 ☐ Become a speech and hearing therapist in another situation; please specify__________

____

5 ☐ Become a housewife
6 ☐ Other________________________

24. **YOUR RESEARCH IN SPEECH AND HEARING IN THE PUBLIC SCHOOLS:** Have you ever done or are you doing any research on your job?

– ☐ Yes
O ☐ No

(a) If yes, what was the general area?

(Check all that apply)

1 ☐ Comparison or development of techniques
2 ☐ Development of testing techniques and devices
3 ☐ Comparative effectiveness of contrasting scheduling methods
4 ☐ Incidence studies
5 ☐ Other________________________

(b) Was this research conducted as:

(Check all that apply)

1 ☐ A requirement for a course or an advanced degree
2 ☐ A voluntary project on your own time
3 ☐ A part of your regularly scheduled work
4 ☐ In cooperation with academically sponsored research
5 ☐ Other________________________

25. THE PREPARATION OF THERAPISTS IN RESEARCH: Should therapists be?

1 ☐ Trained to do research
2 ☐ Required to read and understand, but not conduct research
3 ☐ Exposed to little or no specific training in research

26. RESEARCH IN YOUR SCHOOL SYSTEM: What is the attitude in your system toward experimentation and research?

1 ☐ Favorable
2 ☐ Indifferent
3 ☐ Unfavorable

27. School systems should encourage therapists to do research by:

1 ☐ Time allocation
2 ☐ Allotment of budget
3 ☐ Both time and budget
4 ☐ Should not be encouraged

28. Do you ever engage in private practice?

– ☐ Yes
O ☐ No

If yes, what is the source of your clients?

(Check all that apply)

1 ☐ Students enrolled in my public school therapy classes.
2 ☐ Students enrolled in public school therapy classes but working with a different therapist
3 ☐ Students eligible for public school therapy but not enrolled because of case over-load
4 ☐ Children not eligible for public school therapy because of the nature of the handicap, parochial enrollment, etc.
5 ☐ Adults
6 ☐ Other.____________________

29. What is the largest number of clients you have carried regularly on a private practice basis while working full time as a public school therapist?

1 ☐ I have never engaged in private practice when working as a public school therapist
2 ☐ 3 or fewer
3 ☐ 4 to 9
4 ☐ 10 or more

YOUR REMEDIAL PROCEDURES: What remedial procedures do you use? How often do you use them? For what types of cases?

REMEDIAL PROCEDURE	Do you ever use it?		How often?		For what types of cases?*					
	Yes	No	Often	Sometimes	Artic	Voice	Stutt	DelSp	H of H	Organic
1. Advertising one's problem	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
2. Auditory discrimination training	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
3. Autobiography	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
4. Babbling	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
5. Bibliotherapy	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
6. Breath chewing	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
7. Breathing exercises and drills	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
8. Building "life situation" lipreading vocabulary	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
9. Changing stuttering pattern (bounce, prolongation, relaxed controlled stuttering)	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
10. Checking and rating devices	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
11. Choral reading	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
12. Clinical command	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
13. Commercial speech records	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
14. Creative dramatics–puppetry–role playing	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
15. Directive counseling	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
16. Ear training	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
17. Establishing unilaterality	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
18. Eye contact	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
19. Group discussion	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐

*Artic–articulation; Voice–voice disorders; Stutt–stuttering; DelSp–delayed speech; H of H–hard of hearing; Organic–organic disorders.

REMEDIAL PROCEDURE	Do you ever use it?		How often?		For what types of cases?					
	Yes	No	Often	Sometimes	Artic	Voice	Stutt	DelSp	H of H	Organic
20. Group therapy	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
21. Group singing	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
22. Heterogeneous grouping	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
23. Homogeneous grouping	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
24. Imitation	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
25. Lip, tongue and jaw exercises	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
26. Manipulation of the speech structures	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
27. Mirror observation and practice	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
28. Modified play or release therapy	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
29. Motion pictures, film strips	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
30. Moto-kinesthetic method	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
31. Negative practice	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
32. Non-directive counseling	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
33. Nonsense syllables and drills	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
34. Oral reading (alone)	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
35. Parent guidance	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
36. Penalizing the error	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
37. Phonation exercises and drills	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
38. Phonetic placement	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
39. Practice with isolated vowels	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
40. Psychotherapy	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐

REMEDIAL PROCEDURE	Do you ever use it? Yes	No	How often? Often	Some-times	For what types of cases? Artic	Voice	Stutt	DelSp	H of H	Organic
41. Pupil dictated stories	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
42. Rate drills	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
43. Relaxation games and activities	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
44. Rhythmic training of paired muscles	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
45. Simultaneous talking and writing	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
46. Soft palate exercises and drills	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
47. Sound drills; with word lists, sentences and rhymes	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
48. Speech rhythm exercises and drills	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
49. Speech sound games	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
50. Tape recordings	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
51. Telephone drills	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
52. Throat muscles exercises and drills	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
53. Tongue twisters	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
54. Unison oral reading	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
55. Unit situations, words and phrases (lessons on animals, history, etc.)	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
56. Use of rhythm instruments	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
57. Visual auditory stimulation	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
58. Voice recordings	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
59. Voiceless speech games and activities	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐
60. Whispered voice and phantom lip movements	1 ☐	2 ☐	1 ☐	2 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐

Appendix D

Questionnaire II for Speech and Hearing Supervisory Personnel

NATIONAL SURVEY OF PUBLIC SCHOOL SPEECH AND HEARING SERVICES

Co-sponsored by

United States Office of Education	**Purdue University**	**American Speech and Hearing Association**

QUESTIONNAIRE II
for
SPEECH AND HEARING SUPERVISORY PERSONNEL

TERMINOLOGY: Technical and professional terms used in this questionnaire were provided by the field personnel who submitted items. Preferences for other nomenclature are recognized, but space considerations prohibit the listing of alternative terms.

The information obtained from this questionnaire will be kept strictly confidential. Your name will be used only to facilitate mailing and to check on the alphabetical randomness of the sample. Otherwise, complete anonymity of response is assured.

DIRECTIONS: Please answer every question. In many cases an "other" alternative is offered in order to assure complete coverage. However, if you need to amplify a response, feel free to write in the margins.

CHECK ONLY ONE BOX for each numbered question and each lettered part of a question, unless the directions specifically indicate, "check all that apply."

1. Name ______________________________

2. Your title ______________________________

3. Is this title suitable for the work that you do?
1 ☐ **Yes**
– ☐ **No**
If no, what title would you prefer?
____

4. Your age:

1 ☐ 20-25 3 ☐ 31-35 5 ☐ Over 40
2 ☐ 26-30 4 ☐ 36-40

5. What is your salary?

0 ☐ Under $6000	5 ☐ $8000-8499
1 ☐ $6000-6499	6 ☐ $8500-8999
2 ☐ $6500-6999	7 ☐ $9000-9499
3 ☐ $7000-7499	8 ☐ $9500-9999
4 ☐ $7500-7999	9 ☐ Over $10,000

6. SUPERVISORY DUTIES: How important do you consider each of the following duties to be, for someone in your position?

	Very	Moderately	Slight	Not at all
(a) Assists in diagnosing	1 ☐	2 ☐	3 ☐	0 ☐
(b) Budget preparation	1 ☐	2 ☐	3 ☐	0 ☐
(c) Compiles and reports enrollment figures	1 ☐	2 ☐	3 ☐	0 ☐
(d) Devises report forms	1 ☐	2 ☐	3 ☐	0 ☐
(e) Interview applicants for speech and hearing positions	1 ☐	2 ☐	3 ☐	0 ☐
(f) In-service training for teachers	1 ☐	2 ☐	3 ☐	0 ☐
(g) Observation of therapists	1 ☐	2 ☐	3 ☐	0 ☐
(h) Plans for needed equipment	1 ☐	2 ☐	3 ☐	0 ☐
(i) Prepares and revises "speech handbook"	1 ☐	2 ☐	3 ☐	0 ☐
(j) Schedule of screening and therapy	1 ☐	2 ☐	3 ☐	0 ☐
(k) Takes care of referrals	1 ☐	2 ☐	3 ☐	0 ☐
(l) Talks to outside groups	1 ☐	2 ☐	3 ☐	0 ☐

7. How many therapists are under your supervision?

____

8. What grades do they cover?

(Please circle)

1 2 3 4 5 6 7 8 9 10 11 12

Special________________

9. For how many years has there been a speech and hearing program?

	No. of years 1	2-5	6-9	10 or more
(a) Speech therapy	1 ☐	2 ☐	3 ☐	4 ☐
(b) Hearing conservation	1 ☐	2 ☐	3 ☐	4 ☐

10. How many years of professional experience did you have as a:

(a) Public school speech and hearing therapist? ________________

(b) Speech and hearing therapist in other situations? ________________

(c) Supervisor of speech and hearing therapists? ________________

(d) Other (please specify)________

________________ ________

11. EXTENT OF TRAINING: What is the highest level of education you have completed?

1 ☐ College work but no degree
2 ☐ Bachelor's degree
3 ☐ Bachelor's degree and additional graduate work
4 ☐ Master's degree
5 ☐ Master's degree and additional graduate work
6 ☐ Doctorate

12. LOCATION OF TRAINING: Check the type of institution where your highest level of speech and hearing training was received:

1 ☐ Teacher's college or normal school
2 ☐ Liberal arts college, not part of a university
3 ☐ University
4 ☐ Other________________

13. Do you consider the 300 hour practicum minimum found in ASHA "basic certification" and in many state licensing requirements, a sufficient number of hours for the training of public school speech and hearing therapists?

1 ☐ Yes
– ☐ No

If no, how would you suggest additional practicum hours be allocated: Please rank the following according to importance:

_____ Individual work with severely handicapped
_____ Group therapy
_____ Diagnostics
_____ Parent counseling

14. SPEECH IMPROVEMENT: Do you think speech improvement should be supervised by speech and hearing personnel?

1 ☐ Yes
2 ☐ No

15. Should it be taught by speech and hearing personnel?

1 ☐ Yes
2 ☐ No

16. REIMBURSEMENT: Do speech and hearing programs in your state receive reimbursement?

– ☐ Yes
0 ☐ No

If yes, what reports and records are required of local programs in order to receive reimbursement?

(Check all that apply)

1 ☐ Detailed quantitative information
2 ☐ Limited qualitative information
3 ☐ Program description only
4 ☐ Other_______________

17. Does the local school district receive reimbursement from state funds for time the therapist spends on speech improvement work?

1 ☐ Yes, completely
2 ☐ Partial reimbursement
0 ☐ No

18. LICENSING REQUIREMENTS: Are your state licensing requirements similar to ASHA "basic certification"?

1 ☐ Yes
– ☐ No

If no, is there any trend for this to change

2 ☐ Toward ASHA
3 ☐ Away from ASHA
4 ☐ In a direction unrelated to ASHA
5 ☐ No change

19. What kinds of reports and statistics are routinely submitted to your office?

(Check all that apply)

1 ☐ Census Reports
2 ☐ Classification
3 ☐ Equipment Inventory
4 ☐ Financial Reports
5 ☐ Individual Case Reports
6 ☐ Program Description
7 ☐ Progress Reports

20. In considering therapists for employment, what weight is given to the following:

	Required	Desirable	Unimportant
(a) ASHA Membership	2 ☐	1 ☐	0 ☐
(b) ASHA Certification	2 ☐	1 ☐	0 ☐

21. After a therapist has been employed, do you encourage:

	Yes	No
(c) ASHA Membership	1 ☐	2 ☐
(d) ASHA Certification	1 ☐	2 ☐

22. My principle area of specialization before I became a supervisor was:

1 ☐ Speech and Hearing
2 ☐ General Speech
3 ☐ General Education
4 ☐ Special Education
5 ☐ Other_______________

23. **IMPORTANCE OF SECONDARY SUBJECT MATTER AREAS TO THE TRAINING OF SPEECH AND HEARING THERAPISTS:** Please rank the following on the basis of their relative importance: (Rank from 1st to 4th)

____ General Education
____ Special Education
____ Psychology
____ General Speech (other than speech pathology)

24. Are there any provisions in your system for:

	Yes	No
(a) Pre-school children	1 ☐	2 ☐
(b) Parochial school children	1 ☐	2 ☐

(c) If yes to (a) and (b), please indicate, briefly, what these provisions are________

25. **RECRUITMENT OF PROSPECTIVE THERAPISTS:** Do you do anything in your community to acquaint high school students with the speech and hearing profession?

– ☐ Yes
0 ☐ No

If yes, what do you do?

26. **YOUR RESEARCH IN SPEECH AND HEARING IN THE PUBLIC SCHOOLS:** Have you ever done or are you doing any research on your job?

– ☐ Yes
0 ☐ No

(a) If yes, what was the general area?

(Check all that apply)

1 ☐ Comparison or development of therapeutic techniques
2 ☐ Development of testing techniques and devices
3 ☐ Comparative effectiveness of contrasting scheduling methods
4 ☐ Incidence studies
5 ☐ Other________

(b) Was this research conducted as:

(Check all that apply)

1 ☐ A requirement for a course or an advanced degree
2 ☐ A voluntary project on your own time
3 ☐ A part of your regularly scheduled work
4 ☐ In cooperation with academically sponsored research
5 ☐ Other________

27. **THE PREPARATION OF THERAPISTS IN RESEARCH:** Should therapists be:

1 ☐ Trained to do research
2 ☐ Required to read and understand, but not conduct research
3 ☐ Exposed to little or no specific training in research

28. **RESEARCH IN YOUR SCHOOL SYSTEM:** What is the attitude in your system toward experimentation and research in the system?

1 ☐ Favorable
2 ☐ Indifferent
3 ☐ Unfavorable

29. School systems should encourage therapists to do research by:

1 ☐ Time allocation
2 ☐ Allotment of budget
3 ☐ Both time and budget
4 ☐ Should not be encouraged

30. **THE NEED FOR GRADUATE TRAINING:** How important is graduate training in speech and hearing to the public school therapist?

1 ☐ Essential
2 ☐ Desirable
3 ☐ Unimportant

31. Do you favor a five-year minimum training requirement for a speech and hearing license?

1 ☐ Yes
2 ☐ No

32. TEACHERS' LICENSES FOR THERAPISTS: Do you think that it is important for a speech and hearing therapist to have a teacher's license?

1 ☐ Yes
2 ☐ No

33. THE LOCATION OF CHILDREN WITH SPEECH AND HEARING DISORDERS: With what relative frequency do you employ the following methods?

	Frequently	Occasionally	Rarely or not at all
(a) Referral	1 ☐	2 ☐	3 ☐
(b) Survey	1 ☐	2 ☐	3 ☐
(c) Class visitation	1 ☐	2 ☐	3 ☐
(d) Questionnaire or Inventory	1 ☐	2 ☐	3 ☐
(e) Other__________	1 ☐	2 ☐	3 ☐

34. THE NEED FOR RESEARCH ABOUT CASELOADS: How great is the need for research in order to clarify the relative importance of the following caseload factors?

	Urgent	Moderate	No need
(a) Number of students seen at one time	1 ☐	2 ☐	3 ☐
(b) Number of times per week they are seen	1 ☐	2 ☐	3 ☐
(c) Length of therapy sessions	1 ☐	2 ☐	3 ☐
(d) Block system versus regular scheduling	1 ☐	2 ☐	3 ☐
(e) Homogeneous vs. heterogeneous groups	1 ☐	2 ☐	3 ☐

Do you think this type of research would be permitted in your system, assuming it would be done by competent persons?

1 ☐ Yes 2 ☐ No 3 ☐ I don't know

35. SPEECH IMPROVEMENT PROGRAM IN YOUR SYSTEM: Is there a speech improvement program in your system(s)?

– ☐ Yes
O ☐ No

(a) If yes, is it

1 ☐ Part of the speech and hearing program
2 ☐ Part of the language arts program
3 ☐ A separate program
4 ☐ Other__________________

(b) Has it decreased the number of students requiring therapy?

1 ☐ Yes
2 ☐ No
3 ☐ I don't know

(c) What grade levels are involved in this program?

(Check all that apply)

1 ☐ Primary
2 ☐ Elementary
3 ☐ Secondary

(d) What is the speech and hearing therapists' relationship to this program?

(Check all that apply)

1 ☐ Teach speech improvement classes
2 ☐ Supervise classroom teachers
3 ☐ Other____________________

(e) Are you planning any expansion of your program?

1 ☐ Yes
2 ☐ No

36. SPEECH IMPROVEMENT PROGRAMS: Do you encourage the extension of speech improvement programs in your system(s)?

– ☐ Yes
O ☐ No

If yes, in which of the following ways?

(Check all that apply)

1 ☐ Conducting workshops or conferences
2 ☐ Serving as a consultant
3 ☐ Supplying suitable materials
4 ☐ Other, please specify________________
____
____
____

37. THE THERAPIST AND THE SPEECH IMPROVEMENT PROGRAM: Do you think speech and hearing therapists should participate in the speech improvement programs in their school systems?

– ☐ Yes
0 ☐ No

If yes, in what capacity?

1 ☐ Consultant
2 ☐ Supervisor
3 ☐ Teacher
4 ☐ Other____________________

38. MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS: Please indicate your membership in speech and hearing associations:

	Yes	No
(a) State	1 ☐	2 ☐
(b) ASHA	1 ☐	2 ☐

If no, (to b) have you applied for membership?

1 ☐ Yes
2 ☐ No

39. LICENSE AND CERTIFICATION: Indicate your state license and ASHA Certification.

			ASHA		
	State		Basic Applied for	Basic	Advanced
(a) Speech	1 ☐	(c)	1 ☐	2 ☐	3 ☐
(b) Hearing	2 ☐	(d)	1 ☐	2 ☐	3 ☐

40. RECRUITMENT PROGRAMS: Please check which of the following carry on an active program in your state:

(Check all that apply)

1 ☐ State department of education
2 ☐ Colleges and Universities
3 ☐ High school counselors
4 ☐ State Speech and Hearing Association
5 ☐ Local speech therapists
0 ☐ None of these

Now underline the one which is the most effective recruitment program.

41. EFFECTIVENESS OF RECRUITMENT PROGRAMS: Within what groups is your recruitment program most successful?

1 ☐ High school
2 ☐ College freshmen
3 ☐ Other undergraduates
4 ☐ Teachers
5 ☐ Other____________________

42. RECRUITMENT AIDS: What aids, devices, literature, etc., do you use in your recruitment program?

(Check all that apply)

1 ☐ Movies
2 ☐ Film strips
3 ☐ Pamphlets
4 ☐ Newspapers
5 ☐ Talks by former students
6 ☐ High school workshops
7 ☐ Other____________________

43. STAFFING – SUPPLY AND DEMAND: Is the recruitment in your state commensurate with personnel needs?

1 ☐ Yes
2 ☐ Almost
3 ☐ No

If no, are there sufficient training facilities to take care of more students of speech and hearing therapy?

1 ☐ Yes
2 ☐ Almost
3 ☐ No

44. How do you think recruitment "drives" should operate?

1 ☐ A part of a generalized recruitment program such as is found in "career day" programs in some colleges.

2 ☐ A separate drive by speech and hearing personnel, so as to dissassociate speech and hearing from other educational and therapeutic professions.

3 ☐ We should let recruitment take care of itself; by personal contacts, by college advisors, and by general law of supply and demand.

45. NEEDS FOR MORE ADEQUATE RECRUITMENT PROGRAMS: To what extent is your recruitment program limited? Do you have sufficient:

	Definitely Yes	Usually No
(a) Time	1 ☐	2 ☐
(b) Money	1 ☐	2 ☐
(c) Cooperation of administrative personnel in schools	1 ☐	2 ☐
(d) Materials	1 ☐	2 ☐
(e) Secretarial help	1 ☐	2 ☐
(f) Original approaches	1 ☐	2 ☐

46. WAITING LIST: Approximately how many additional students could be admitted to speech and hearing therapy under optimum conditions?

____

47. YOUR PROFESSIONAL RELATIONSHIPS: How would you classify your professional relationships with each of the following individuals?

	No Contacts	Excellent	Satisfactory	Other
(a) Classroom teachers	0 ☐	1 ☐	2 ☐	3 ☐
(b) Principals	0 ☐	1 ☐	2 ☐	3 ☐
(c) Superintendent	0 ☐	1 ☐	2 ☐	3 ☐
(d) School psychologist and/or guidance counselor	0 ☐	1 ☐	2 ☐	3 ☐
(e) School nurse	0 ☐	1 ☐	2 ☐	3 ☐
(f) School doctor	0 ☐	1 ☐	2 ☐	3 ☐
(g) Special education directors	0 ☐	1 ☐	2 ☐	3 ☐

48. ATTENDANCE AT PROFESSIONAL MEETINGS: Does your administration furnish you time and/or money to facilitate your attendance at meetings of speech and hearing organizations?

For attending Meetings of:	Released time and funds	Released time only	Nothing
(a) State Speech and Hearing Association	1 ☐	2 ☐	0 ☐
(b) Regional Speech and Hearing Association	1 ☐	2 ☐	0 ☐
(c) ASHA Convention	1 ☐	2 ☐	0 ☐

49. BLOCK SYSTEM:

	Yes	No
(a) Have you ever used it?	1 ☐	2 ☐
(b) Are you now using it?	1 ☐	2 ☐

If yes, to (a) or (b) evaluate its effectiveness below:

1 ☐ Block system is far superior
2 ☐ Block system is a little better
3 ☐ About the same
4 ☐ Regular scheduling is a little better
5 ☐ Regular scheduling is far superior

Appendix E

Questionnaire III for Academic Institutions which Offer Training Applicable to Public School Speech and Hearing Therapy

NATIONAL SURVEY OF PUBLIC SCHOOL SPEECH AND HEARING SERVICES

Co-sponsored by

United States Office of Education

Purdue University

American Speech and Hearing Association

QUESTIONNAIRE III

for

ACADEMIC INSTITUTIONS WHICH OFFER TRAINING APPLICABLE TO PUBLIC SCHOOL SPEECH AND HEARING THERAPY

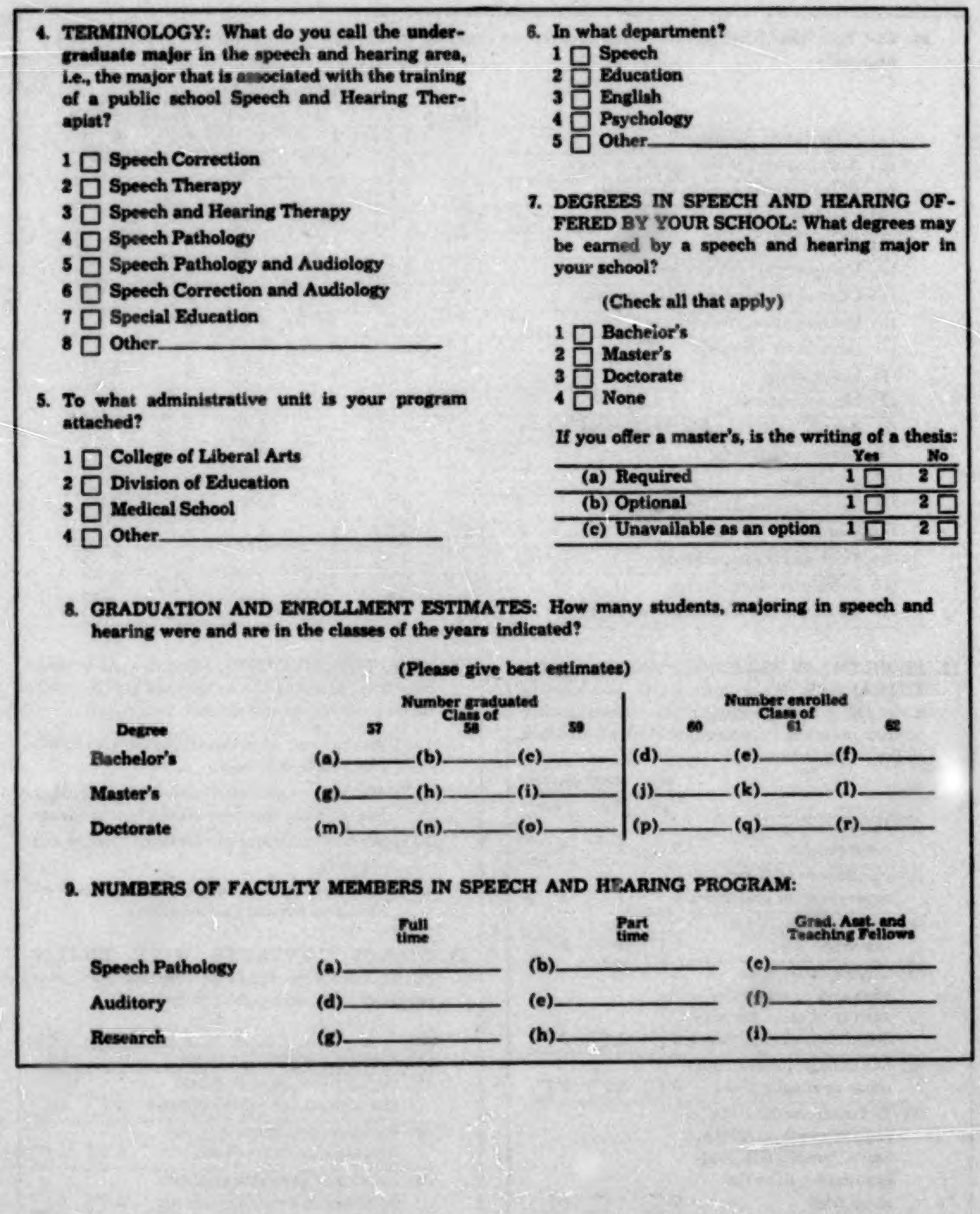
TERMINOLOGY: Technical and professional terms used in this questionnaire were provided by the field personnel who submitted items. Preferences for other nomenclature are recognized, but space considerations prohibit the listing of alternative terms.

The information obtained from this questionnaire will be kept strictly confidential. Your name will be used only to facilitate mailing and to check on the alphabetical randomness of the sample. Otherwise, complete anonymity of response is assured.

DIRECTIONS: Please answer every question. In many cases an "other" alternative is offered in order to assure complete coverage. However, if you need to amplify a response, feel free to write in the margins.

CHECK ONLY ONE BOX for each numbered question and each lettered part of a question, unless the directions specifically indicate, "check all that apply."

1. Name of Institution____________________
2. Name of person completing this questionnaire ____________________
3. Title ____________________



4. TERMINOLOGY: What do you call the undergraduate major in the speech and hearing area, i.e., the major that is associated with the training of a public school Speech and Hearing Therapist?

1 ☐ Speech Correction
2 ☐ Speech Therapy
3 ☐ Speech and Hearing Therapy
4 ☐ Speech Pathology
5 ☐ Speech Pathology and Audiology
6 ☐ Speech Correction and Audiology
7 ☐ Special Education
8 ☐ Other____________________

5. To what administrative unit is your program attached?

1 ☐ College of Liberal Arts
2 ☐ Division of Education
3 ☐ Medical School
4 ☐ Other____________________

6. In what department?

1 ☐ Speech
2 ☐ Education
3 ☐ English
4 ☐ Psychology
5 ☐ Other____________________

7. DEGREES IN SPEECH AND HEARING OFFERED BY YOUR SCHOOL: What degrees may be earned by a speech and hearing major in your school?

(Check all that apply)

1 ☐ Bachelor's
2 ☐ Master's
3 ☐ Doctorate
4 ☐ None

If you offer a master's, is the writing of a thesis:

	Yes	No
(a) Required	1 ☐	2 ☐
(b) Optional	1 ☐	2 ☐
(c) Unavailable as an option	1 ☐	2 ☐

8. GRADUATION AND ENROLLMENT ESTIMATES: How many students, majoring in speech and hearing were and are in the classes of the years indicated?

(Please give best estimates)

	Number graduated Class of			Number enrolled Class of		
Degree	57	58	59	60	61	62
Bachelor's	(a)____	(b)____	(c)____	(d)____	(e)____	(f)____
Master's	(g)____	(h)____	(i)____	(j)____	(k)____	(l)____
Doctorate	(m)____	(n)____	(o)____	(p)____	(q)____	(r)____

9. NUMBERS OF FACULTY MEMBERS IN SPEECH AND HEARING PROGRAM:

	Full time	Part time	Grad. Asst. and Teaching Fellows
Speech Pathology	(a)____	(b)____	(c)____
Auditory	(d)____	(e)____	(f)____
Research	(g)____	(h)____	(i)____

-2-

10. **COURSE REQUIREMENTS:** What courses are required for graduation with a major in speech and hearing?

	Number of courses					
	1 or part	2	3	More	Not required	Not available
(a) Articulatory disorders	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(b) Audiometry (Audiology)	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(c) Child growth and development	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(d) Child psychology	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(e) Clinical methods	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(f) Clinical practice: in clinic	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(g) Clinical practice: in public schools	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(h) Hearing conservation	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(i) Laboratory methods	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(j) Lip reading	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(k) Mental hygiene	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(l) Normal speech and language development	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(m) Organic disorders	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(n) Phonetics	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(o) Speech correction (pathology)	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(p) Stuttering	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(q) Tests and measurements	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(r) Voice disorders	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐
(s) Voice science (Anatomy-Acoustics)	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	0 ☐

11. **PROBLEMS IN TRAINING PUBLIC SCHOOL THERAPISTS:** What problems do you have in maintaining and developing the present quality of your program for preparing students to work in the public schools?

	No problem	Minor problem	Severe problem
(a) Insufficient staff for teaching	0 ☐	1 ☐	2 ☐
(b) Insufficient staff for supervision of practicum	0 ☐	1 ☐	2 ☐
(c) Insufficient staff for research	0 ☐	1 ☐	2 ☐
(d) Cannot provide an adequate number and variety of cases for students' clinical experience	0 ☐	1 ☐	2 ☐
(e) Not enough funds to purchase new equipment	0 ☐	1 ☐	2 ☐
(f) Difficulty meeting the requirements of ASHA, State Certification, and graduation all at the same time	0 ☐	1 ☐	2 ☐
(g) Inadequate physical facilities	0 ☐	1 ☐	2 ☐

12. **NEED FOR STUDENTS:** What is your present situation regarding the acceptance and rejection of students for speech therapy programs?

1 ☐ We have to turn down good students because of lack of room.
2 ☐ We have more applicants than openings, but we have room for all the best students.
3 ☐ We are operating comfortably close to our capacity.
4 ☐ We have room for more students, but don't have enough suitable applicants.

13. **DIRECT CONTACTS WITH PUBLIC SCHOOLS:** What kinds of contacts does your program have with public schools?

	Yes	No
(a) Provide student therapists	1 ☐	2 ☐
(b) Set up workshops in speech and hearing for school systems	1 ☐	2 ☐
(c) Perform speech and hearing surveys in public schools	1 ☐	2 ☐
(d) Faculty or graduate students do research in public schools	1 ☐	2 ☐
(e) Talks before faculty and parent groups	1 ☐	2 ☐

14. In what year of college do students usually:

	Freshman	Sophomore	Junior	Senior
(a) Take first course in speech therapy	1 ☐	2 ☐	3 ☐	4 ☐
(b) Begin required observation	1 ☐	2 ☐	3 ☐	4 ☐
(c) Begin required therapy	1 ☐	2 ☐	3 ☐	4 ☐

15. **STUDENT TEACHING REQUIREMENT:** Indicate the kind of student teaching you require of your speech and hearing majors:

1 ☐ Regular classroom practice teaching
2 ☐ Speech and hearing practice teaching
3 ☐ Both of the above
0 ☐ No practice teaching is required

16. Does your training program include practice therapy in school systems that do not have speech and hearing programs?

1 ☐ Yes
2 ☐ No

17. Approximately how many practicum hours are undergraduate students required to have?

	Observation	Participation therapy
In a public school situation	(a)_____	(b)_____
In a clinical setting	(c)_____	(d)_____

18. **SUPERVISION OF PRACTICUM:** In clinical practice and/or practice teaching are your students supervised by:

1 ☐ Your own school staff
2 ☐ Public School critic teachers
3 ☐ Both
0 ☐ None

If there is supervision, what does this supervision consist of?

(Check all that apply)

	Not Applicable	Daily Observation	Periodic Observation	Conferences With Student
(a) In a public school situation	0 ☐	1 ☐	2 ☐	3 ☐
(b) In a university clinical situation	0 ☐	1 ☐	2 ☐	3 ☐
(c) In a medical or rehabilitation facility	0 ☐	1 ☐	2 ☐	3 ☐
(d) Others	0 ☐	1 ☐	2 ☐	3 ☐

19. **YOUR CURRICULUM:** Do you teach methods, organization, and administration of public school speech and hearing therapy?

1 ☐ As a separate course
2 ☐ As a part of a more general course
3 ☐ Incidently in clinical work and student supervision
0 ☐ Not at all

20. **EMPLOYMENT OF GRADUATES:** Using the students who graduated last year as a guide, by whom are your students employed after they graduate from your speech-hearing program? (Include both Bachelor's and Master's programs.)

	Three-fourths or more	About half	One-fourth or less
(a) Public school	3 ☐	2 ☐	1 ☐
(b) Medical and rehabilitation centers	3 ☐	2 ☐	1 ☐
(c) University (staff or grad asst.)	3 ☐	2 ☐	1 ☐
(d) Other__________	3 ☐	2 ☐	1 ☐

21. Does your institution:

	Yes	No
(a) Require a speech and hearing examination for all students in your College or University	1 ☐	2 ☐
(b) Require a speech correction course of all education majors	1 ☐	2 ☐

Appendix F

Questionnaire IV for Speech Improvement Teachers

NATIONAL SURVEY OF PUBLIC SCHOOL SPEECH AND HEARING SERVICES

Co-sponsored by

United States Office of Education	**Purdue University**	**American Speech and Hearing Association**

QUESTIONNAIRE IV
for
SPEECH IMPROVEMENT TEACHERS

TERMINOLOGY: Technical and professional terms used in this questionnaire were provided by the field personnel who submitted items. Preferences for other nomenclature are recognized, but space considerations prohibit the listing of alternative terms.

The information obtained from this questionnaire will be kept strictly confidential. Your name will be used only to facilitate mailing and to check on the alphabetical randomness of the sample. Otherwise, complete anonymity of response is assured.

DIRECTIONS: Please answer every question. In many cases an "other" alternative is offered in order to assure complete coverage. However, if you need to amplify a response, feel free to write in the margins.

CHECK ONLY ONE BOX for each numbered question and each lettered part of a question, unless the directions specifically indicate, "check all that apply."

1. (a) Name ______________________________

(b) Your school system's name and location

____

2. Which of the following best describes your position?
   1 ☐ Speech improvement teacher
   2 ☐ Speech and hearing therapist
   3 ☐ Classroom teacher (alone)
   4 ☐ Classroom teacher (with guidance from therapist)
   5 ☐ Other________________________

3. Your age:
   1 ☐ 20-25
   2 ☐ 26-30
   3 ☐ 31-35
   4 ☐ 36-40
   5 ☐ Over 40

4. What is your salary for the school year?
   1 ☐ Under $3500
   2 ☐ $3500-3999
   3 ☐ $4000-4499
   4 ☐ $4500-4999
   5 ☐ $5000-5499
   6 ☐ $5500-5999
   7 ☐ $6000-6499
   8 ☐ $6500-6999
   9 ☐ $7000 or more

5. In what grades do you teach speech improvement classes? (Please circle)

   K 1 2 3 4 5 6 7 8 9 10 11 12

   Special (specify) ________________________

6. How many years of professional experience have you had as a:

	Years of experience				
	1	2 or 3	4, 5 or 6	7, 8, 9 or 10	Over 10
(a) Speech improvement teacher	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
(b) Teacher (including (a))	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

7. EXTENT OF TRAINING: What is the highest level of education you have completed?
   1 ☐ College work but no degree
   2 ☐ Bachelor's degree
   3 ☐ Bachelor's degree and additional graduate work
   4 ☐ Master's degree
   5 ☐ Master's degree and additional graduate work
   6 ☐ Doctorate

8. PROFESSIONAL ORGANIZATIONS: Do you belong to any of the following?

	Yes	No
(a) American Speech and Hearing Association	1 ☐	2 ☐
(b) Council for Exceptional Children	1 ☐	2 ☐
(c) NEA	1 ☐	2 ☐
(d) State Speech and Hearing	1 ☐	2 ☐
(e) State Teachers Organization	1 ☐	2 ☐

9. What is the average size of your speech improvement class(es)? ________________

10. About how long are your periods for teaching speech improvement? ________________

11. How many periods each week are devoted to speech improvement for each student? ________

12. How much time do you spend each week teaching speech improvement classes?

    Number of hours____________

13. What do you do besides teach speech improvement?

    (Check all that apply)

    1 ☐ All subjects in elementary grades
    2 ☐ Just speech, reading
    3 ☐ Other________________________

14. TRAINING: In which one of these fields have you had the most complete training and experience?
    1 ☐ Speech and hearing therapy
    2 ☐ Speech arts
    3 ☐ English
    4 ☐ Other (please specify your major field)____
    ____

    Please underline the one which you think would be the best for teachers of speech improvement.

15. YOUR IMMEDIATE SUPERIOR: To whom are you directly responsible for the conduct of your program?

1 ☐ Superintendent of schools
2 ☐ Principal
3 ☐ Director of special education
4 ☐ Supervisor of speech and hearing
5 ☐ Other____________________

16. PREVIOUS TRAINING OF YOUR SUPERVISORS: What is the training background of your immediate supervisor?

1 ☐ Speech and hearing
2 ☐ Special education with some speech and hearing
3 ☐ Special education without speech and hearing
4 ☐ Other____________________

17. SPEAKING ACTIVITIES: Which of the following do you use?

(Check any that apply)

1 ☐ Choral speaking
2 ☐ Individual reading
3 ☐ Dramatics, story telling, radio programs
4 ☐ Discussion and conversation
5 ☐ Other____________________

Please underline the one you use most often.

18. How does your supervisor assist you?

(Check all that apply)

1 ☐ In planning curriculum
2 ☐ Giving classroom demonstrations
3 ☐ With preparation for special programs and meetings
4 ☐ Coordinating speech improvement with regular curriculum
5 ☐ Coordinating speech improvement with remedial speech and hearing services
6 ☐ Assisting in evaluation of and improvement of speech improvement program

19. Do you receive supervisory or consulatory assistance from a speech and hearing –

	Yes	No
(a) Supervisor	1 ☐	2 ☐
(b) Therapist	1 ☐	2 ☐

20. METHODS YOU ARE USING – EXERCISES: Here is a list of "exercises" related to the teaching of speech and language. Which of these do you use in your teaching of speech improvement?

	Used often	Used occasionally	Don't use it
(a) Discriminate between similar speech sounds such as /s/ and /sh/	1 ☐	2 ☐	3 ☐
(b) Eliminate "mumbling"	1 ☐	2 ☐	3 ☐
(c) Eliminate sound substitutions	1 ☐	2 ☐	3 ☐
(d) Hear and use variations of pitch, time and loudness	1 ☐	2 ☐	3 ☐
(e) Produce correctly all speech sounds	1 ☐	2 ☐	3 ☐
(f) Relaxation	1 ☐	2 ☐	3 ☐
(g) Pronounce syllables correctly	1 ☐	2 ☐	3 ☐
(h) Separate words into their phonetic components	1 ☐	2 ☐	3 ☐
(i) Stress appropriate syllables	1 ☐	2 ☐	3 ☐
(j) Use appropriate gestures and facial expressions to communicate feeling and mood	1 ☐	2 ☐	3 ☐
(k) Use International Phonetic Alphabet	1 ☐	2 ☐	3 ☐
(l) Other (specify)________	1 ☐	2 ☐	3 ☐
(m) Tongue, lip and jaw	1 ☐	2 ☐	3 ☐

21. **METHODS YOU ARE USING—ACTIVITIES: Here is a list of speaking activities that can be used in the teaching of speech improvement. Which of these do you use in your teaching of speech improvement?**

	Used often	Used occasionally	Don't use it
(a) Auditory training drills	1 ☐	2 ☐	3 ☐
(b) Discussions and conversations	1 ☐	2 ☐	3 ☐
(c) Dramatic presentations	1 ☐	2 ☐	3 ☐
(d) Oral reading	1 ☐	2 ☐	3 ☐
(e) Parliamentary procedure	1 ☐	2 ☐	3 ☐
(f) Talks and reports	1 ☐	2 ☐	3 ☐
(g) Voice and articulation practice and drills	1 ☐	2 ☐	3 ☐
(h) Other (specify)______	1 ☐	2 ☐	3 ☐

22. **What kinds of materials are used in your speech improvement program?**

(Check all that apply)

1 ☐ Electronic equipment (tape recorder, radio, record player, television, movies)

2 ☐ Speech games

3 ☐ Special speech improvement books and workbooks

4 ☐ Puppets

5 ☐ Other____________________

23. **LESSON PLANS: Which of the following approaches to the preparation of lessons for your speech improvement classes do you employ?**

1 ☐ Informal lesson plans

2 ☐ Plans written in advance by yourself

3 ☐ Those suggested and/or prepared by your supervisor

4 ☐ Other____________________

Now, please underline the one you use most often.

24. **How is the effectiveness of your speech improvement program measured?**

(Check all that apply)

1 ☐ Articulation tests
2 ☐ Voice ratings
3 ☐ Judgment of parents
4 ☐ Judgment of teachers
5 ☐ Judgment of children
6 ☐ Judgment of speech improvement supervisor
7 ☐ Other____________________

25. **Have you observed that speech improvement helps students to:**

	Yes, definitely	To a limited extent	No	Don't know
(a) Develop good speech, voice and language patterns	1 ☐	2 ☐	3 ☐	4 ☐
(b) Correct minor speech and voice problems	1 ☐	2 ☐	3 ☐	4 ☐
(c) Express their ideas clearly	1 ☐	2 ☐	3 ☐	4 ☐

26. **What kinds of inservice training are available to persons teaching speech improvement?**

(Check all that apply)

1 ☐ Workshops in speech improvement in local schools
2 ☐ Regional conferences in speech improvement
3 ☐ State conferences in speech improvement
4 ☐ College courses in speech improvement
5 ☐ Demonstrations by supervisor of speech improvement
6 ☐ Other____________________

27. **For how many years has your system had a speech improvement program?**

1 ☐ 1
2 ☐ 2-5
3 ☐ 6-9
4 ☐ 10 or more

28. **SPEECH IMPROVEMENT (ENROLL): Approximately what percentage of your school student population is enrolled in speech improvement classes?**

1 ☐ Less than 10%
2 ☐ 11% to 25%
3 ☐ 26% to 50%
4 ☐ 51% to 75%
5 ☐ More than 75%